

BROOKSIDE SCHOOL SCHEDULE

Brookside School runs on a six-day scheduling cycle which provides a well-paced day with large blocks of uninterrupted teaching time.

THE SCHOOL DAY

Pre-kindergarten and Junior Kindergarten

Multi-Age PreK and JK Morning	8:15 – 11:00 AM
Multi-Age PreK and JK Afternoons	12:00 – 2:45 PM
Full Day PreK and JK	8:15 AM – 2:45 PM

Senior Kindergarten

Full Day	8:15 AM – 2:45 PM
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Grades 1 – 5

8:00 AM – 3:00 PM

Fully supervised care is available for a fee after school. Supervised before-school care begins at 7:30 AM for Grades 1-5 and 7:45 AM for the Early Childhood Center.

Many children participate in extracurricular after-school classes at Brookside. Recent classes have included Speedsters, Scout troops, Robotics, Chess Club, Yoga and Brookside Choir.

USE OF THE CRANBROOK FACILITIES AND GROUNDS

Class visits to the Cranbrook Institute of Science and Cranbrook Art Museum, as well as unique programming and collaboration with the museum educators, enhance our curriculum. Cranbrook's world class grounds are also utilized for art, drama, visual studies, writing, science, and physical education activities. The Williams Natatorium, Wallace Ice Arena, and other athletic facilities are also an important part of a Brookside student's distinctive experience.

PRE-KINDERGARTEN and JUNIOR KINDERGARTEN

Brookside offers a variety of programming for Pre-kindergarten and Junior Kindergarten children: full day Pre-kindergarten and Junior Kindergarten and half-day Multi-Age classes. Each classroom is led by two lead teachers and an assistant teacher, who support small group and individualized learning.

In order for young children to flourish, an early childhood program must support all areas of a child's development: social, emotional, physical, and cognitive. Play provides the opportunities for development in these areas, allowing children to interact with materials and other children. As children play, they satisfy a natural desire for re-creating, discovering and constructing knowledge about their world.

Children learn best in an environment that provides hands-on experiences that engage the mind. The teacher's role is to provide stimulating materials and experiences for the children, to observe, assess and support their skills. Teachers also help children develop strategies for solving problems and relate their learning to everyday life situations. Our Pre-kindergarten and Junior Kindergarten programs are carefully planned to stimulate children's curiosity, allow for repeated practice in the development of academic skills, support children in making constructive choices and solving problems, provide opportunities for creativity and expression, and demonstrate respect for individuality.

Each class has a similar structure to the day that provides consistency and routine which is important for young children. The different components of the Pre-kindergarten and Junior Kindergarten day are listed below.

Arrival: Each school day begins with an arrival time that allows for a comfortable transition from home to school. Children organize their belongings, chat with their friends and teachers, and playfully interact with a selection of activities.

Meeting Time: Children and teachers use this time to discuss the schedule for the day, share important news from home, review the calendar and routines, introduce units of study, and participate in learning activities, finger-plays, music, and games that relate to the unit.

Choice Time: Important learning takes place during choice time as the children choose and interact with thoughtfully selected materials from the areas of art, drama, literature, math, science, writing/literacy, blocks, and sensory work. This is also a time for children to socialize, learn to work cooperatively, make independent choices, and solve problems.

Small Group Time: Children work on math, literacy, and fine motor skills with more individualized attention. Teachers interact with small groups of children to extend, support and challenge their learning. Many of the fine motor activities are from the *Handwriting Without Tears* program.

Story Time: Students listen and respond to carefully chosen, high-quality children's literature.

Snack and Lunch: Not only are children eating a healthy snack or meal, but they are also taking on responsibility and practicing manners as they wash hands, accept or decline certain foods, participate in conversations, and clean-up after themselves.

Recess: Children run, jump, climb and play together on the ECC playground. This is a free, unstructured play time for children, and an important time to develop motor skills, friendships, and social skills.

Rest: Rest is equally as important as physical activity during the school day, and each full-day student has a quiet time for sleep or quiet time.

Specialist Classes: The Pre-kindergarten and Junior Kindergarten programs are enriched by meaningful experiences with Science, Library, Music, Innovation & Technology, and Physical Education classes. Spanish is added at the Junior Kindergarten year.

The Pre-kindergarten and Junior Kindergarten curriculum is enhanced by extensive use of the Cranbrook grounds and resources, field trips, assemblies, and special activities.

SENIOR KINDERGARTEN

The Senior Kindergarten curriculum offers a child-centered environment enriched with an ever-evolving, hands-on, multi-sensory learning experience, with a focus on nurturing the potential within each child. Spontaneous and planned experiences promote optimal physical, social, emotional, and intellectual growth. Opportunities for developing skills and logical, critical, and creative thinking are cultivated through the subject areas of literacy, mathematics, science, social studies, technology, art, music and movement, and physical education. Through large and small group instruction and open center activities, the atmosphere in Senior Kindergarten encourages children's independence, enthusiasm, creativity, a growing intellectual curiosity, and a positive attitude toward learning. The development of self-esteem and self-confidence is nurtured through an awareness of peer behavior, sensitivity to the needs to others, and the acquisition of a basic repertoire of pro-social interaction skills.

Open Centers: During open centers, children have opportunities to participate in a center, select materials or an activity, and work through the activity until completion. Many concepts, relationships, and skills are independently explored. The following learning centers are available: art, discovery, science, and math. Within these centers, a variety of activities engage children as they interact with teachers and peers. Open centers provide an excellent opportunity for integrating curricular areas. Activities also include independent use of the SMARTBoards, cooking, exploration with blocks, manipulatives, and dramatic play which provide multi-sensory opportunities for learning.

Math: Senior Kindergarten children receive instruction drawing upon the Houghton Mifflin Go Math Program. Lessons begin with problem-based situations and then build to more abstract thinking and application. All along the way, students use multiple models, manipulatives, quick pictures, and symbols to build mathematical thinking. Using manipulatives, multiple models, and rich, rigorous questions, students move through a carefully-sequenced arc of learning. They develop deep conceptual understanding, and then they practice, apply, and discuss what they know with skill and confidence. The equal emphasis on understanding, procedural skills and fluency, and application help our students develop into problem solvers and critical thinkers.

Critical areas for math instruction at the Senior Kindergarten level are:

- Representing, relating, and operating on whole numbers, initially with sets of objects.
- Describing shapes and space.

Each day, students have a meeting and a calendar discussion. This discussion provides meaningful, real-world opportunities for rote counting, sequencing, identifying patterns, graphing, and problem solving.

In addition, during open centers, the math center offers a variety of materials and games to engage the children in developing and extending mathematical concepts and their application to everyday situations.

Central to our math program is the development of strong problem-solving skills. Many opportunities are provided and occur naturally every day in Senior Kindergarten. As in all curricular areas, the Senior Kindergarten math program provides a challenging study for each child in our program.

Literacy: Diversified language experiences and regular exposure to quality children's literature provide a rich environment for oral expression and communication. In addition, vocabulary development and the formulation and sequencing of ideas are promoted. Teachers assess children's emerging literacy and provide appropriate developmental experiences. Children will begin using phonetic writing based on their developmental levels of sound-letter acquisition and gain the ability to read back what they have written. These experiences are all part of a balanced literacy approach that occurs during small and large group time, Reading and Writing Workshop, and open centers.

The children make pattern books, class books, journals, word lists, word books, and language experience stories. Through these activities, the connection between spoken and written words is solidified. These activities also reinforce children's letter recognition, sound-letter correspondence and a phonetic approach to writing words: "phonetic writing."

The development of strong critical listening skills is emphasized throughout the year. Parents, may assist the development of this writing/reading process by reading aloud daily from a variety of quality children's books. Book selection should include fiction, poetry and non-fiction.

Children are given many opportunities to work on oral language development throughout the year. This may take the form of dramatic play and presentations, puppetry, class discussions, reciting poetry and shared reading experiences.

Handwriting: Handwriting skills are taught using the *Handwriting Without Tears* curriculum developed by Jan Olson, an occupational therapist who has specialized in handwriting for more than 25 years. The multi-sensory lessons in this program teach to all learning styles: visual, auditory, tactile and kinesthetic. The *Handwriting Without Tears* method emphasizes correct letter formation and legibility, which aids in children's ability to read back their writing.

Technology: Teachers and children use appropriate tools of technology daily to enhance core curricular areas. There are SMARTBoards and iPads located in each Senior Kindergarten classroom.

Field Trips: As an integral part of the program, field trips are taken to the Cranbrook Institute of Science, the Art Museum, the Wallace Ice Arena, the William's Natatorium, and on the Cranbrook grounds. Additional excursions off-campus are also scheduled.

Classes with Specialists:

Library

Media, Innovation, and Technology

Science

Spanish

Music

Physical Education

FIRST GRADE

Language Arts

Reading – Ongoing authentic assessment drives our reading instruction. Using a guided reading approach within a balanced literacy program, students experience the opportunity to develop as individual readers. The teacher supports each reader’s development of effective strategies for processing texts at increasingly challenging levels of difficulty. We work in small, flexible groups with children who use similar reading processes and are able to read similar levels of text with support. Guided reading enables children to use and develop strategies to construct meaning from text and understand sentence structure, words they don’t know and concepts or ideas they have not previously met in print. The ultimate goal in guided reading is to help children learn how to use independent reading strategies successfully and understand the language of print. Activities include: guided reading with leveled books, shared reading, Big Books, poetry, Time for Kids and author studies. Reading Workshop provides the opportunity to “shop” and select books at just the right level for independent, sustained reading. New books are chosen once a cycle. Mini lessons provide guidance for students to explore and discuss elements of a story and build upon their knowledge and language of books.

Writing – Children are provided with many opportunities and formats to write during the first grade year. Formal handwriting instruction including letter formation, size and conventions of print are taught throughout the year. Writing instruction includes modeled, interactive and guided writing. Children use journals to record their ideas. Writing Workshop takes the children through the writing process. Children pre-write, create a rough draft, self-edit, peer-edit, and publish a final product that they read to audiences.

Phonics/Spelling – Students develop spelling strategies through purposeful daily reading and writing activities with more explicit instruction through the Spelling Connection Word Study Program. Students will benefit from direct, research and language-based differentiated instruction that supports the necessary role spelling plays in meaningful communication.

Handwriting – The program *Handwriting Without Tears* by Jan Olsen, guides our handwriting curriculum. Guided work in handwriting workbooks follows the teacher’s “mini lessons.”

Mathematics

Houghton Mifflin Harcourt GoMath! encourages students to engage with mathematics in new ways. Each lesson begins with problem-based situations and then builds to more abstract problems. Students use multiple models, manipulatives, quick draws and symbols as well as rich and rigorous questions while moving through a carefully sequenced arc of learning. They develop deep conceptual understanding and then practice, apply and discuss what they know with skill and confidence. During lessons, students will have an opportunity to work both cooperatively and independently through hands-on games and activities. GoMath! also offers rich in-class and home technology components that allow students and parents to interact with mathematics in ways that enriches each daily lesson. Rocket Math basic fact exercises are done in class to supplement the GoMath! program.

Social Studies

The approach in teaching social science is conceptual and experiential. It is designed to help the student investigate, evaluate and make decisions. Some of the specific areas that the children will be involved in are: children long ago, diversity within the family, school, and community; the language of respect; friendship, mapping skills and economics. During the grades one through five, students at Brookside are exposed to the tenets of the world's 5 major religions. First Graders begin that journey by learning the historical background and the basic beliefs and traditions of Judaism. Children will be introduced to developmentally appropriate text, which will be used as a guide for discussion, extension of concepts and group problem-solving.

Classes with Specialists:

Library

Media, Innovation, and Technology

Science

Spanish

Health

Art

Drama

Music

Physical Education

SECOND GRADE

Language Arts

In second grade, we present a balanced literacy program and scaffold instruction through our Reading and Writing Workshops. Each workshop incorporates a mini lesson, individual reading and writing, conferring with students and whole group shares.

Reading – In our reading workshop, we instruct, guide and assist students on a daily basis so that they can read, learn and respond independently to a text. Our aim is to develop active, thoughtful and proficient readers, who construct meaning using a variety of strategies, e.g. by activating prior knowledge, creating visual images, drawing inferences from the text, asking questions and synthesizing what they read. With guidance, children select “Just Right” books to enhance the development of these skills.

Writing – Our Writing Workshops are divided into several units of study, each covering approximately four weeks of instruction. Children are invited to write each day. Our units begin with oral and pictorial storytelling, through emergent and into fluent writing. The units will include personal narratives, small moments, teaching skills and strategies for writing for readers, the crafts of editing and revising, realistic fiction, nonfiction and poetry. Children will work on their individual pieces, incorporating the instruction that they have received. There will be a celebration at the end of each unit with a sharing of published work.

Spelling/Visual Skills - The writing process naturally extends into spelling. We use the Spelling Connection program which is embedded in our language arts instruction. Students will benefit from explicit, research and language-based differentiated instruction that supports the necessary role spelling plays in meaningful communication. With this program, students will retain, internalize, and transfer valuable spelling knowledge for improved results in all areas of literacy.

This program includes the following:

- Discovering and applying rules and patterns
- Proofreading
- Using the dictionary
- Online games
- Daily homework
- Connections across the curriculum

Handwriting – The program *Handwriting Without Tears* by Jan Olsen, guides our handwriting curriculum. Guided work in handwriting workbooks follows the teacher’s “mini lessons.”

Mathematics

The Go Math! program is the basis for instruction/experience in this content area. It gets students engaged with learning, focused on working smarter, and ready for the future. This comprehensive program includes

interactive components that allow each teacher to personalize learning for all students. Partner, large, and small group activities are conducted within the math workshop model. This is an opportunity for students to participate in cooperative learning, differentiated learning, discussions, and mathematical communication. This year's areas of focus will be number sense and place value, addition/subtraction, measurement and data, geometry, and fractions. Lessons extend into other content areas such as science, social studies, and literacy.

The second grade uses Rocket Math to practice and build students' knowledge of basic facts in addition, subtraction, and multiplication. This program is done twice per week within the math workshop setting. Students move at their own pace, (guided by their teachers) with the focus on mastery at each level. This program is used in first through third grades.

Social Studies

In second grade, students continue the integrative approach to social studies through the context of the local community, Cranbrook and Birmingham. This is the first time students are introduced to a social environment larger than their immediate surroundings and they draw upon knowledge learned in previous grades to develop more sophisticated understandings to explore the social studies disciplines of history, geography, civics and government and economics. Students also continue their study of religion by learning the historical background and the basic beliefs and traditions of Christianity.

Classes with Specialists:

Library
Media, Innovation, and Technology
Science
Spanish
Health
Art
Drama
Music
Physical Education

THIRD GRADE

Language Arts

The language arts program for third grade is designed to further develop independent writing and reading skills and to increase comprehension, word recognition and usage, while promoting critical and analytical thinking.

Reading –The Reading Workshop model consists of a mini-lesson, independent reading, reading conferences, and a closing or share. Workshop begins with a mini-lesson focused on a specific teaching point. After the skill is explicitly modeled or demonstrated, children are given time to practice the strategy independently. During this portion of the workshop, students are engaged in reading and responding to selected texts at their independent reading level. During this independent work time, teachers meet with students to reinforce the skills individually or through flexible, small group, strategy lessons. The conclusion of workshop allows students to share what they have learned with their teacher and peers.

Across all units, an increased emphasis is placed on the skill of interpretation. At this level, readers are transitioned to more sophisticated reading work. Book Clubs and Partnerships provide children with the opportunity to read multiple books within a variety of genres.

Writing Workshop –The Writing Workshop Model is similar to the Reading Workshop model. Each session begins with a mini-lesson that contains a specific teaching point that will help students enhance their writing. Many of the teaching points relate to teaching how to write with focus, detail, grace, structure, clarity, insight, honesty and an increasing control of conventions. Often this is done by rehearsing, modeling, planning, studying writing of exemplar texts, drafting, rereading, revising, reimagining and editing. During mini-lessons, children also study the conventions of written language, including writing in paragraphs, punctuation, and construction of complex sentences. After the mini-lesson, students engage in independent writing where they experiment with the skills and strategies taught in mini-lessons and confer with their teacher. Each session concludes with a closing time where writers are given the opportunity to share entries.

Spelling/Visual Skills – Our spelling program is embedded in the language arts program. Our program, called Spelling Connections, provides daily explicit spelling patterns and strategy instruction students need to ensure proficiency in this important foundational skill. This program utilizes a five-day plan that delivers meaningful instruction and practice including word sorts, word work, and daily activities linked to reading, writing, and phonics. Word lists and assessments can be differentiated to meet students' needs, and the program integrates technology to provide relevant spelling instruction and practice. With this program, students will retain, internalize, and transfer valuable spelling knowledge for improved results in all areas of literacy.

Handwriting–Third grade marks the year when students are introduced to and begin to use cursive in their writing. Third Grade continues to use the *Handwriting without Tears* program. During the first semester, the third grade students will learn cursive letter formation. During the

second semester, the children will be expected to utilize their cursive handwriting in most written assignments.

Daily Language Review—The children will participate in the *Daily Language Review* program. This program helps the children review grammar, writing mechanics, and punctuation. The children will be required to correct and punctuate a sentence or passage and write the corrected form. These exercises will serve as a review of material covered throughout the year.

Mathematics

Third grade utilizes the *Go Math!* program by Houghton Mifflin Harcourt. *Go Math!* helps students engage with the Standards and Practices in new ways. Lessons begin with problem-based situations and then build to more abstract problems. All along the way students use multiple models, manipulatives, quick pictures, and symbols to build mathematical understandings. Students move through a carefully sequenced arc of learning where they develop deep conceptual understanding, and then practice, apply, and discuss what they know with skill and confidence. Concepts that will be covered include addition and subtraction of whole numbers to one thousand, data, multiplication, division, fractions, and measurement. Students will also use the Rocket Math program to help develop mastery of multiplication facts.

Social Studies

The Social Studies Program in third grade focuses on the state of Michigan. Areas of study include state history, economics, government, and geography. The third grade will utilize the textbook, *Meet Michigan*. This provides opportunities for students to read informational literature about a variety of topics.

In addition to reading for information, the students will be engaged in field trips, projects, and hands-on experiences throughout the year to enhance the curriculum. The assessment process involved in the social studies program will be ongoing during the school year by means of observation, written assignments, written assessments, discussions, and classroom participation. The *Scholastic News Magazine* will also be used as a resource for current events and informational literature within the third grade. Third Grade students have the opportunity to learn about Hinduism. We will focus on the major tenets of this world religion.

Classes with Specialists:

Library
Media, Innovation, and Technology
Science
Spanish
Health

Art
Drama
Music
Physical Education

FOURTH GRADE

Language Arts

Reading—Reading Workshop is a time to involve students in authentic reading experiences. The children receive explicit instruction in the process and skills of proficient reading. Reading Workshop emphasizes the importance of student engagement and the interaction between readers and text. It also provides differentiated instruction in reading, focusing on the teaching of reading strategies and complex comprehension skills. Throughout the year, the students will engage in thoughtful discussions and write meaningful reading responses to the books they are reading.

Writing—In Writing Workshop, children are taught the skills and strategies of effective writing. The writing process is utilized in addition to direct teaching of ideas, word choice, organization, sentence fluency, and conventions. We provide students the opportunity and instruction for them to cycle through the writing process regularly as they draft, revise, edit, and publish their writing. The students will write narrative, expository, literary essays, and opinion texts and study texts that are similar to those they are writing, aiming to learn specific strategies for quality writing.

Spelling/Word Voyage— Word Voyage asks students to engage with each word in many ways: spelling, syllables, word roots, root meanings, parts of speech, and more. Using paper and pencil along with an on-line component, students will build their vocabulary and strengthen their knowledge of spelling. Word lists are built from Greek and Latin roots. There will be opportunities for children to work on additional spelling challenges when appropriate. Students will be held accountable for high frequency spelling words as well. Our goal is for children to use correct spelling and increase vocabulary usage in their daily work.

Handwriting-Fourth graders continue to use the *Handwriting Without Tears* program to reinforce cursive handwriting taught in third grade with the goal of it becoming an automatic, natural skill.

Mathematics

Go Math is an engaging and interactive approach to teaching mathematics. Its digital components and student materials ensure that students can access content at appropriate levels of depth and rigor.

It capitalizes on student interest and maximizes student learning. Students are encouraged to link past experiences to new concepts, become flexible, creative problem solvers, work cooperatively, discuss possible solutions, and apply mathematics to their everyday lives. Fourth grade students study place value, algorithms for adding and subtracting large numbers, multiplication and division of whole numbers, factors, multiples, fractions, decimals, two-dimensional figures, angles, units of measurement, perimeter and area.

Social Studies

The fourth grade social studies curriculum introduces students to the regions of the United States. Through the lens of the United States, they learn the geographic, economic, and governmental concepts. They study the physical geography of the United States as well as the cultural characteristics of regions of the country. Students analyze human systems in the United

States by exploring the interaction between the people and their natural environments, the movement of people, products, and ideas, and the distinguishing features of various regions within the country. By focusing on the characteristics of the U.S. economy, students learn fundamental economic concepts and apply these to their own lives. They study economic ties between the United States and other places, and discover how their country is an interdependent part of the global economy. Students are introduced to the purposes, structure, and function of our federal government. They also examine the relationship between the rights and responsibilities of citizens in a democratic republic. In addition, students study current issues facing the United States and practice making and expressing informed decisions as citizens. Fourth Grade students have the opportunity to learn about Islam. We focus on the major tenets of this world religion.

Classes with Specialists:

Library
Media, Innovation, and Technology Science
Spanish
Health
Art
Music
Instrumental
Physical Education

FIFTH GRADE

Reading/Language Arts

The fifth grade curriculum presents a balanced literacy program for your children. Skills will be taught and then applied in the context of genuine reading and writing experiences. The program will include reading aloud, writing, shared reading, shared writing, guided reading, guided writing, independent reading and independent writing. We encourage fifth graders to find their voice as writers, and to refine their skills and strategies as readers. Reading and writing are separate, but intimately related processes.

Reading – Fifth Grade will continue to use the Reading Workshop model for literacy instruction. It is the aim of the reading program to establish a joy and commitment to reading in each child and to foster critical reading and thinking skills. We hope your child will choose to read for pleasure. We will be reading and discussing quality literature throughout the year.

Independent reading is a systematic way of supporting and guiding students as they read on their own. This is a very important component of our reading program. The student self-selects books from the classroom, school, public or home library. In independent reading or “Reading Workshop,” students silently read books while the teacher confers with individuals. They also respond to their reading in a journal once each week. It is expected that every child will read for a minimum of twenty minutes each evening. Over the school year, consistent daily reading will expose your child to various authors and styles, and will improve your child’s fluency, vocabulary, comprehension and writing.

This involves partner or small group instruction for students who read the same text. These small groups are temporary and provide an opportunity to teach effective strategies for processing a variety of fiction and non-fiction texts. Typically, when undertaking a small group literature study, group members will be assigned a variety of reading and writing tasks. They share these responses and talk in depth about what they have read.

Writing - The aim of the fifth grade writing program is for children to grasp the concepts of good writing and the writing process, to communicate accurately and effectively in writing, and to work with some independence. The Writing Workshop model provides a foundation for us to achieve this goal.

Time is set aside for writing and we refer to our writing time as Writing Workshop. Children follow a writing process used by published authors of novels, poems, short stories, essays, and articles.

The Writing Workshop typically begins with a ten-minute writing lesson during which time the skills of good writing are taught. During this instruction period, children are taught strategies or methods they can use to make their writing stronger, clearer and more correct. As they work, teachers work with small groups or with individuals. After students work on their writing, we gather for a share time. This gives the children an opportunity to share what they have accomplished.

During the course of the year, we move from one writing unit to another. The year begins with refining the qualities of a good personal narrative. The curriculum is designed to help students develop stamina, as well as a sense of purpose, an appreciation for conventions, and an enthusiasm for writing. As the year progresses, the children will learn to write in a variety of genre.

Word Study - In fifth grade, students broaden their word study with a shift in focus from spelling to usage and vocabulary through the *Wordly Wise* program. One lesson will be completed for homework each week, and will be due on Friday. Vocabulary cards will also be brought to class that day. Weekly

quizzes will be given. In addition, a test will be given on the completion of each chapter. The chapter test is every fourth week. Children will be encouraged to incorporate these words into their daily writing.

Handwriting - Fifth graders continue to use the *Handwriting Without Tears* program to reinforce cursive handwriting taught in third and fourth grade with the goal of it becoming an automatic, natural skill.

Mathematics

Go down deep enough into anything and you will find mathematics. ~ Dean Schlicter

The exploration of mathematics for children can be an exciting journey. We, as parents and teachers, are guides that can make this journey more rewarding and enjoyable for our children as we discover mathematics in the world around us.

The Go Math! curriculum is the primary component of our fifth grade mathematics program at Brookside. This program offers an engaging and interactive approach to mathematical standards, and emphasizes deep understanding, computational fluency and real-life applications. Its digital path and workbook-style text ensure that students can access content at appropriate levels of depth and rigor. Some unique features:

- A write-in student workbook for each chapter allows students to problem solve, record, and practice all in one book. Students have an ongoing record of their work. Each lesson also includes 2 pages of practice and homework.
- The Interactive Student Edition provides an online interactive approach to developing the lesson concepts. It works on computers and tablets. The iSE will also link to Math On The Spot videos.
- Math On The Spot videos are instructional videos featuring GO Math! authors, providing an engaging video tutorial for every lesson to demonstrate important concepts and skills. QR codes in the student workbook allow you and your child to view the videos at home by scanning the code with a smart phone or tablet.

Each lesson in GO Math! begins with an Essential Question that sets the stage for the lesson topic. Real world problems that are instructionally sound and relevant to students are presented within each GO Math! lesson. Strategies and conceptual understanding are highlighted through visual representations, mathematical models, and student explorations. The student edition facilitates engagement with the mathematics from the beginning of instruction because of its interactive, write-in format. Depth of understanding is reinforced through the use of “Math Talk”, and “Write Math” questions provided within the lessons to support verbal and written communication around important mathematical topics.

Go Math consistently develops mathematical vocabulary; each chapter in the GO Math! student books includes the vocabulary words for the chapter on tear-out cards. In addition, there are vocabulary activities, games and writing activities that begin every chapter. New vocabulary is highlighted within the lessons along with writing opportunities for students to use their math vocabulary words.

The program provides real world connections and applications. Problem solving is practiced daily in lesson practice sets that include real life application problems. You will notice the Real World problem solving logo used throughout the student book lessons. The problem solving skill or strategy lessons

provide strong reading support, and problem solving practice moves from specific strategy practice to mixed strategy practice. Students learn how to use models and representations to help them solve problems.

Enjoy the discovery of and the conversation about math at home with your child! Ask them to tell you about their lesson. Play a game with their vocabulary cards. Ask them to teach you how to solve a problem; teaching someone else provides clarity and deeper understanding.

Social Studies

Through the disciplines of history, geography, sociology, civics and economics students explore American Indians, Exploration - the New World, Early English Settlement, Colonial America and Breaking Ties with Great Britain. Fifth grade students study primary and secondary source material, including resources from the Cranbrook Institute of Science. American history is explored using a variety of collaborative and interactive projects throughout the year. Fifth graders focus on developing skill in reading for information, identifying key facts and synthesizing informational text along with writing accurate non-fiction research reports. Reading is done in our new social studies text *Social Studies Alive!* as well as in Joy Hakim's American history series, *A History of Us*, and in many trade books and publications.

As a continuation of the school-wide study of the five major world religions, fifth graders study the beginnings and major tenets of Buddhism.

Grades will be based upon assessments of individual assignments, participation in group projects, collaborative effort, presentations, participation in class and unit assessments.

Classes with Specialists:

Library

Media, Innovation, and Technology

Science

Spanish

Health

Art

Music

Instrumental

Physical Education

LIBRARY CURRICULUM – ECC

Junior Kindergarten and Senior Kindergarten classes visit the library once per six-day cycle for story time and book-related activities. Pre-Kindergarten and Multi-Age classes visit the library once or twice per month; the librarian brings materials to their classrooms for additional class experiences. Children are introduced to the library and the librarian. They learn proper library conduct, care of books, and the parts of a book. The librarian introduces a variety of authors and illustrators in all genres to the students. Lessons include information on the differences between fiction and nonfiction books. Age appropriate digital resources are introduced at various times during the year. Junior Kindergarten and Senior Kindergarten students are given opportunities to select books which they checkout for use in their classrooms. The goal of the ECC library program is for students to realize that the library is a safe, welcoming space to find stories for entertainment and information to answer questions.

LIBRARY CURRICULUM – GRADES 1-5

Students in grades 1-5 visit the library once per six-day cycle for story time, information literacy lessons, and book-related activities. In the library, students focus on two areas: literature appreciation and information skills. A variety of genres and multicultural texts are introduced to all grades, both in conjunction with the homeroom reading workshop unit of study and as a means to inspire a love of reading. In first, second, and third grade, students are introduced to electronic databases, digital encyclopedias, and nonfiction print resources when they are asked to locate information for class projects. In the fourth grade, information skills for research are presented as a six-step process. Students learn how to access, evaluate, analyze and use information in both print and electronic resources. This process is reviewed and elaborated upon as students move up to the fifth grade. All students have regular opportunities to check out print books, audiobooks, and magazines for personal reading. Digital resources are available to students both on- and off-campus on any internet-connected device. The goal of the library program is to encourage and develop critically thinking, independent library users who are aware of the wide variety of resources available for class projects, personal use, and reading pleasure.

SPECIAL LIBRARY PROGRAMS FOR ALL BROOKSIDE STUDENTS

In addition to scheduled and informal class time in the library, additional programs designed to foster a love of reading include:

Author/Illustrator Day- A well-known author or illustrator visits the school, and the children have the opportunity to purchase autographed books for their home collections.

Library Gift Books- Parents have the opportunity to donate books to enhance the collection of the library. Books may be purchased as gifts to the library in the child's name, in honor of a

teacher, as a birthday gift, a memorial gift or in honor of a special friend or relative. A personalized gift plate is placed in each gift book.

Reading Stars- Members of the Cranbrook and greater community are invited to share their love of reading with library classes in May. Guest readers bring a selection of books to read aloud, then discuss the multitude of ways reading is important in their professional and personal lives.

MEDIA, INNOVATION, AND TECHNOLOGY – EARLY CHILDHOOD CENTER

A teacher will visit Pre-Kindergarten, Junior Kindergarten, and Senior Kindergarten classrooms once per cycle during choice time. Senior Kindergarten students additionally come to the Innovation and Technology Lab once per cycle for thirty minutes. Curiosity, creativity, problem solving, use of tools and materials, and thoughtful inclusion of technology are emphasized.

MEDIA, INNOVATION, AND TECHNOLOGY – GRADES 1-5

The media, innovation, and technology team has integrated their areas of instruction to create multi-disciplinary classes for Brookside students in grades one through five. The focus of this class is to enhance Brookside's curriculum through the use of current and evolving technology and problem-solving skills. The instruction team works closely with the classroom teachers to integrate skills with numerous aspects of grade level curriculum.

The International Society for Technology in Education (ISTE) standards are one of the guidelines used for curriculum planning and implementation. Computer and technology skills are needed to access, utilize, communicate and present information. Internet safety and digital citizenship are covered at each grade level. Media skills allow the student to become knowledge producers, and critical information consumers. Students will also be immersed in visual literacy. As wise consumers and creators of the visual medium, they will deconstruct images and media messages and learn how to create their own.

Critical thinking and problem solving are crucial as students develop as innovators. Students will use design thinking and engineering to collaborate in developing solutions to complex problems. To discover how technology can aid in this process, students will also use Computational Thinking, an aspect of computer science that provides context to coding skills. Tinkering and Making also allows students to explore how to use a rich variety of materials combined with digital fabrication techniques to create unique engineering solutions.

The following computer application software is used in grades 1-5 in the media arts program: KidPix, Scratch and Scratch Jr., Google Apps for Education, TinkerCAD and Adobe Premiere.

Other software will be used for special projects. Keyboarding begins in the fourth grade with before and after school instruction using the web-based program *Type to Learn*.

Students in grades one through five are scheduled for class once in the six-day cycle for a forty-minute block of time. The team has scheduling flexibility to support independent thinking, individual expression and teamwork. In consultation with the classroom teachers, they provide learning experiences which can explore curricular subjects in greater depth.

SCIENCE - ECC

Pre-kindergarten, Junior Kindergarten, and Senior Kindergarten: Young children are natural scientists. The early childhood program supports and promotes science learning through a wide variety of classroom experiences. The children participate in activities and experiments that expand their knowledge base and encourage curiosity. They use words and/or pictures to communicate their understanding and learn how to use their senses to collect information.

SCIENCE – GRADES 1-5

Grade One: First graders participate in a science program that emphasizes a “hands-on” approach to learning. The students have an opportunity to observe their environment, formulate questions, make predictions, manipulate materials, arrive at some conclusions, and learn ways to communicate and record their findings. By experiencing the scientific process first-hand through a large variety of classroom experiences, the learning becomes more meaningful, and concepts are internalized.

Grade Two: Second grade science focuses on basic concepts in the areas of earth, life and physical science through “hands-on” active participation of the students. The children experience the scientific method of inquiry through observation, questioning, hypothesizing, predicting, experimenting, recording, classifying and making inferences about the world around them.

Grade Three: Third grade students extend their understanding of concepts they studied in previous years. In life science they begin to explore characteristics of seed plants. They use this knowledge to explain how these characteristics help plants survive in their environments. Finally, students describe the positive and negative effects of humans on the environment. In physical science, they explore, build, and use simple machines. The earth and space science strand focus on the solar system and beyond.

Grade Four: Students meet with the science teacher three times in a six-day cycle. They begin the year by learning about characteristics of ecosystems. Then, students examine the Earth, Moon, and Sun relationship, focusing on the geological, hydrological, atmospheric, and magnetic traits of the Earth. The remainder of the year is spent studying physical science. Students learn about energy and its forms and examine how energy interacts with matter. Next, students learn about the properties of forces and how they can influence motion. Basic information is introduced, which will serve as a foundation for further study of forces in fifth grade. Students are evaluated based on class discussion and participation, lab activities, homework, and unit quizzes.

Grade Five: Students meet with the science teacher three times in a six-day cycle. Genes and traits are introduced in life science and made concrete through the study of the effects of environment and heredity on the evolution of groups of organisms. In physical science, students expand their competency in measuring the distance, area, volume, mass, and density of various objects and substances. Students use these skills to demonstrate and explain how to control the motions of objects and measure forces such as gravity, friction, buoyant force, and electromagnetic forces. Students are evaluated based on class discussion and participation, lab activities, homework, and unit quizzes.

PHYSICAL EDUCATION

The Brookside physical education curriculum is a balance of skills, games, dance and sports experiences designed to enhance the cognitive, motor, affective, and physical fitness development of every child. Under the guidance of four physical education teachers, students in Pre-kindergarten through fifth grade follow a developmentally appropriate progression of instruction. Children are provided with frequent and meaningful age appropriate opportunities that enable individuals to develop an understanding of movement concepts (body awareness, space awareness, effort and relationships), and build competence and confidence in their ability to perform a variety of motor skills, sport skills and modified team games (locomotor, non-locomotor, and manipulative).

In Pre-Kindergarten, Junior and Senior Kindergarten, time is divided among teacher-directed movement, game experiences, and activities the children choose themselves. The senior kindergarten children are exposed to a water safety program that includes a week-long class at the Williams Natatorium. In grades one through three, the emphasis is on individual skill development and cooperative group play. Team lead-up activities introduce the skills associated with football, basketball, lacrosse, baseball, etc., and emphasize cooperation, sportsmanship and fair play. In grades four and five fitness and sport skill remain a focus. These students continue to develop basic skills, individually, with partners, and in teams by participating in modified

games associated with the sport of study. Units of study include: football, basketball, lacrosse, baseball/softball, gymnastics, volleyball, and soccer.

In addition to an outstanding indoor facility and a wide range of equipment, spacious Cranbrook grounds and athletic facilities are used for a variety of activities.

EDUCATIONAL DRAMA

Educational drama at Brookside allows children to take risks in a creatively responsive and safe environment. Throughout the year, students create, role-play, innovate and decision make. They are encouraged to use their imaginations to the fullest. Positive reinforcement also plays an important role in the drama classes in helping to promote a healthy sense of self-esteem and confidence in each child.

The drama curriculum is an integration of academic curriculum themes with drama skills. Literature themes and social studies issues become the groundwork for story drama, storytelling, puppetry, and improvisation. Confidence, decision-making, problem-solving and group skills are several areas that drama influences in a positive way through theatre games, improvisation, voice and sensory exploration, choral reading, theatre history and scene study.

LITERACY SUPPORT

Literacy Support is an integral part of the language arts program of Cranbrook Schools Brookside. Two full-time literacy specialists provide remedial assistance for those students, in grades Senior Kindergarten through fifth grade, who have been identified by their classroom teachers as experiencing lags in the acquisition of developmentally appropriate literacy skills. Literacy specialists also provide instructional support to classroom teachers and are trained to administer diagnostic testing to students. The program is an important supplement to Brookside's comprehensive literacy curriculum. Students receive reinforcement of literacy skills and strategies, which have been presented in their homerooms, in a small group setting. Instruction focuses on the application of comprehension strategies, accurate fluent reading, accessing background knowledge, phonemic awareness, oral language, vocabulary acquisition and writing strategies. This instruction is delivered through the use of real world reading and writing applications, using appropriately leveled texts. The frequency of class meetings is dependent on student needs. Programming models include focused small group instruction, push-in instruction within the homeroom setting, and collaborative lesson planning with classroom teachers. Student progress is monitored regularly and in a collaborative fashion with the classroom teacher. Attendance may change as individual children progress and reach the necessary benchmarks. New students are cycled in at that time. Written progress reports are

sent home in January and June, with informal communication taking place on an as-needed basis throughout the year.

SPANISH

Spanish instruction at Brookside begins in junior kindergarten and continues through fifth grade. Classes are taught almost entirely in Spanish. Brookside's Spanish program is called FLEX (FOREIGN LANGUAGE EXPOSURE). The FLEX program provides opportunity for early exposure to a second language so children can understand language concepts more thoroughly, helping them in learning both foreign languages and their mother language. Children begin to master the sound system and correct pronunciation of Spanish and develop a feeling of confidence. In the program, language participation in class activities is of primary importance. Paired activities, small group work, short films, games and songs (all in Spanish) develop skills in simple communication. Students are also encouraged to make connections and comparisons between their language and culture, and the language and culture of Spain and Latin America. Students in the fourth and fifth grade use the text *Descubre el Español con Santillana* to support and extend their learning. An online component of this curriculum allows for rich home school connections.

The program is designed to help students feel comfortable verbalizing the Spanish language with an introduction to reading and writing in Spanish, provide a life-long interest in foreign language learning, expose students to selected Hispanic festivities and create a foundation for language study in the middle school.

Globalization is part of our daily lives. The ability to speak several languages plays a major role. The world speaks more than one language, and Brookside students are a part of this global trend.

ART

The art program at Brookside blends self-expression, the development of creative thinking, and an appreciation of art history. These elements are the foundation for the development of children's ability to visually express their ideas. Our goals are to reinforce their deeply rooted creative impulses without inhibition, and to help them build confidence in their expression. The art program encourages children to gain an understanding of the unique contributions the arts make to everyone's experience with, and understanding of, the world. As children grow, these elements will continue to reinforce their imagination and originality, observation and visualization, awareness of space, color, line and pattern in man-made forms and in nature.

An important part of the Brookside Studio art experience includes exposure to Cranbrook's artistic heritage and resources. The children visit the Cranbrook Art Museum and Saarinen House, draw in the Oriental and Brookside Gardens, and study the sculpture and architecture on campus. The fifth grade students work with an artist-in-residence who is a second year graduate student at the Cranbrook Art Academy. This artist-in-residence works along with the studio teacher and the children in their area of artistic expertise.

The art program can be divided into the following areas of investigation at every grade level: drawing, painting, printmaking, forming and constructing.

INSTRUMENTAL MUSIC

Instrumental music is offered in the curriculum to every student in the fourth and fifth grades. At the end of the third grade, all students are introduced to the standard instruments traditionally found in a band or orchestra. A student's placement in instrumental music is based on: recommendations from the instrumental and general music teachers, balanced instrumentation numbers within each ensemble, and parent decision. Classes meet twice each six-day cycle. Fourth graders meet once a cycle by instrument and once a cycle by homeroom. Fifth grade classes meet twice a cycle by homeroom. An annual performance occurs each year in April at the Performing Arts Center. For the concert, groups are combined as a 4th/5th Grade Band and a 4th/5th Grade String Ensemble. Students may elect to continue with their chosen instrument in the Middle and Upper School Instrumental Program. Private music lessons are also available after school hours for all students and are scheduled by the private music faculty. A separate contract is required for this additional private instruction.

GENERAL MUSIC

The General Music Program at Brookside is built upon Orff-Schulwerk and Music Learning Theory. These philosophies include ways to teach and learn music. Natural childhood inclinations form the basis of activities, including songs, chants, rhymes, dances, movement, and developing beat awareness and competency. These instincts are directed into learning music by hearing and making music first - then reading and writing it later.

At Brookside, music happens in a non-competitive atmosphere where one of the rewards is the pleasure of making good music with others. The special Orff barred instruments include wooden xylophones, metal glockenspiels and metallophones. The melodic instrument used is the recorder. Many performances highlight the musical life at Brookside. These include a Grandparents' Program in November, grade level performances for grades one through five, and a Spring Festival of the Arts.

Goals of the General Music Program

1. Use body movement to develop:
 - a sense of time, space, weight, flow and coordination
 - a means of creative expression of musical concepts

2. Use speech to develop:
 - sensitivity to the expressiveness of language
 - rhythmic understanding and skills
 - understanding of form
 - feeling for pulse and meter

3. Use rhythmic activities to develop:
 - understanding of rhythmic relationship, coordination, and musical independence
 - feeling for pulse and meter
 - understanding of form
 - rhythmic memory

4. Develop melodic skills in singing and playing to:
 - achieve a repertoire of songs
 - gain understanding of form; introductions, repetition, phrases, canons, rondos
 - distinguish between melody and accompaniment
 - gain understanding of pitch and interval relationships
 - gain elementary pitch reading ability in treble clef

5. Develop improvisational skills:
 - in speech, rhythm, body movement and melody
 - in combining the components above

6. Acquire knowledge and listening experience in regard to great masterworks and composers:
 - become acquainted with many great musical compositions through a variety of
 - experience the music of famous composers' activities: playing or singing the melodies, listening, recordings, live performances and videotapes

HEALTH

Brookside's health education program reflects the Michigan Health Education Content Standards and strives to lay the foundation for our students to become health literate. Health literacy will enable our students to obtain, interpret, and understand health information, as well as initiate and continue

patterns of health-related behaviors and attitudes that will contribute to positive individual, family and community health. While valuing individual differences and focusing on personal responsibility, respect for others, and skill development, a variety of modalities and activities are utilized in the study of a range of physical, mental and social health topics.

At Brookside where children are the focus of education, the health education program is based on the following premises:

- Children are curious about themselves and their relationships with others.
- Children want to understand how their bodies work.
- Children can accept and treasure individual differences.
- Children are more likely to take care of their bodies and their health if they value themselves.
- Children benefit by sharing thoughts and feelings.
- Children are willing to take responsibility for their health in age appropriate ways and endeavor to know how to do so.

Summary of Health Education Program at Brookside/Early Childhood Center (ECC)

Overview: In the ECC, a full-time nurse is available as a resource and to provide enrichment programs to the classes on an “as needed” basis. Lessons in hand washing, dental care, healthy hearts and healthy bones are typically done. Additionally, lessons in nutrition, muscle and bone health, heart health and safety are conducted in the ECC physical education classes.

At Brookside, the full-time school nurse teaches health formally in grades 1-5. First and second grade have health daily for 3-week blocks (30 and 40 minute classes respectively). Third grade has health twice each 6-day cycle for a 9-week period. This equates to approximately 6-8 hours of health for grades 1, 2 and 3. Fourth and fifth grades have health twice in the 6-day cycle for one semester. This equates to 16 hours of health instruction.

First grade: In first grade, students learn the concepts of healthy, unhealthy and habits. The curriculum then introduces, develops, and reinforces healthy habits that will be used for a lifetime. Topics include:

- Personal hygiene, germs, contagious illnesses contamination prevention/protection strategies; hand washing, use of barriers, proper care around blood, how to seek help.
- Dental hygiene, tooth identification, tooth function, tooth anatomy, cavities, dental health habits
- Nutrition and eating habits; five food groups and classifying foods. Healthy eating is presented as eating a variety of food groups and foods of bright colors (natural colors).
- Safety habits: safety rules related to fires, medicines, introduction to non-medicinal drugs, strangers.

Second grade: Second grade continues with a study of germ and germ transmission and nutrition, followed by a study of body organs and an appreciation of the five senses and handicaps. Topics include:

- Germs, microbes, germ transmission- introducing bacteria and viruses and some of the illness caused by these germs.
- Vaccines and scientists who have made contributions re. germs.
- Five senses are discussed with a focus on how we can protect them. The anatomy and function of the eyes and ears are studied.
- Handicaps related to the five senses (blindness, deafness) are studied.
- Continuation of nutrition unit with a focus on snacks

Third grade: Students begin the study of the body systems. We emphasize how the system works, illnesses related to a system, how we protect the systems and the health professionals related to a particular system. Topics include:

- Introduction to cells, tissues, organs and systems
- Immune system- study of AIDS
- Digestive system
- Skeletal system
- Cardio-vascular system

Fourth grade: This grade's topics are intended to assimilate the material presented in the previous years, as well as take into account this age group's growing independence, sense of responsibility and increasing awareness of a broader world. We begin to move away from pure physical health topics into mental health topics, including:

- Eating well/nutrition- food groups, nutrients for healthy living, daily needs
- Decision making
- Safety- home-alone safety, fire safety and stranger safety
- First aid skills- Heimlich maneuver, bleeding, unresponsive victim, avulsed tooth, nose bleeds, joint injuries, and burns

Fifth grade: More emphasis is placed on social and mental health topics. We also study drugs and human reproduction/puberty. Topics include:

- Health triad: physical, mental, social and how they are interconnected in each person
- Self-concept-learning to describe ourselves in non-physical terms; our personalities
- Feelings- managing feelings in a safe and health promoting way

- Review of friendships, peers and cliques.
- Communication-assertive, passive aggressive
- Peer pressure refusal skills
- Drugs-safe and unsafe use, safe and unsafe drugs. The concepts of addiction and substance abuse are introduced.
- Human Development course includes a study of puberty and human reproduction in single-gender classes.