

## Philosophy and Objectives

Since its foundation in 1978 ACS Hillingdon International School has endeavoured to provide a quality education for a multi-national community in the London area. The curriculum is based on internationally recognised principles. Internationalism is the cornerstone of our learning environment.

### Our Philosophy

- Prepare young people to take their places in a rapidly changing world
- Set high academic expectations in a rigorous and diverse educational programme
- Address and meet the developmental needs of our students
- Foster a sense of belonging and a sense of community
- Provide social, emotional, and academic guidance
- Instil an appreciation, respect, and understanding of cultural values.

### Objectives

- Fostering communication and technological skills to navigate in a globalised society
- Motivating students to develop a positive attitude towards life long learning
- Developing responsible international citizens
- Providing meaningful learning experiences that enable students to acquire and apply knowledge and critical thought
- Offering quality educational resources and opportunities to promote the development of students, faculty, and staff
- Delivering programmes that address issues associated with a highly mobile population
- Supporting students in achieving their academic, creative, and physical potential by educating the whole child
- Providing and encouraging students to participate in a variety of new, enriching, and meaningful extra curricular activities
- Creating a caring and cooperative environment within the school community
- Encouraging participation in community service and support of local and international charities
- Offering students opportunities to work collaboratively and independently in support of the community
- Offering students services and resources that support their social and emotional development
- Promoting a partnership with parents to meet the individual needs of our students
- Reinforcing core ethical values by emphasising personal and social responsibility
- Providing opportunities for students to understand, appreciate, and develop sensitivity for all cultures, genders, and ethnicities
- Promoting an awareness of environmental concerns and issues.

## **Contents**

Page 3	Welcome
Page 4	About our Classes
Page 5	Reporting to Parents
Page 6	Differentiating Instruction: Meeting the needs of each child
Page 7	Field Trips
	Artist in Residence Programme
	Community Service
Page 8	Clubs and Activities
	Course Descriptions
Page 9	Curriculum Introduction
Page 10	Language Arts
Page 11	Reading
Page 14	Writing
Page 17	Handwriting
	Keyboarding
Page 18	Mathematics
Page 36	Science
Page 42	Social Studies
Page 46	Art
Page 47	Music
Page 48	Physical Education
Page 49	Modern Language Programme
Page 50	Information Technology
Page 51	Library
Page 52	Curriculum Summary Charts

# ACS Hillingdon International School

## Lower School

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### Welcome

At ACS Hillingdon, children come from all around the world. They have a range of backgrounds, interests, and abilities, and bring with them countless talents. With such a rich mixture of students, it is inevitable that our children receive an education well beyond reading, writing and arithmetic. Internationalism is naturally part of our school culture, and we recognise and celebrate diversity in a variety of ways.

Standards form the backbone of our curriculum. After careful research of standards in various countries, our standards were adapted from educational systems in the United Kingdom, United States, and Australia. In our Lower School, we strive to differentiate instruction to meet each child's individual needs and learning styles through a well-balanced curriculum. Our class sizes are small, and we have systems in place that provide for academic challenge. Assessment is ongoing. Student progress is carefully tracked in reading, writing, and mathematics to identify progress that individuals make and also to compare our individual and group results to other national and international norms. We regularly report to parents. Our progress reports are based upon our standards and benchmarks, and we are also mindful of the importance of the social and emotional well being of the child. Standardised testing begins in 4<sup>th</sup> Grade. Students from 1<sup>st</sup> Grade onwards receive regular homework. We believe that homework should only be provided when it is effective in supporting the learning process.

An ACS education is well rounded and includes field trips and visits from Artists in Residence to complement our academic programme. Our students have opportunities to participate in various drama and musical performances, as well as art exhibitions. We believe in teaching children about the importance of community service. Clubs and activities are available outside of school time.

Our teachers are recruited from national and international school systems, and we seek to engage educators who believe in our philosophy. Our teachers arrive with specific expertise and we encourage them to stay current by providing both a generous professional development allowance and ongoing professional development within our school. This presents a considerable investment, but one that we believe translates into student achievement.

Our performance as a school is audited by external bodies residing in the United States and the United Kingdom. We are accredited by the New England Association of Schools and Colleges (NEASC) and the Independent Schools Association (ISA).

We communicate frequently with parents and encourage them to volunteer in our school. We see parents as partners, and as such, we value their opinions. Each year, we survey within our community to benchmark perceptions of our performance, using the feedback to modify practice. Our parent surveys tell us – without exception – that we provide a happy and secure environment for children. This is important to us and underpins our success in developing each child's confidence and academic potential to the full. We are proud of our children and their achievements.

### The Lower School Principal and Faculty

## About our Classes (1 of 2)

The Lower School spans from Pre-Kindergarten through 4<sup>th</sup> Grade. Ages and corresponding grade levels follow:

Age	Entry Grade
4-5yrs	Pre-Kindergarten*
5-6yrs	Kindergarten
6-7yrs	1 <sup>st</sup> Grade
7-8yrs	2 <sup>nd</sup> Grade
8-9yrs	3 <sup>rd</sup> Grade
9-10yrs	4 <sup>th</sup> Grade

\* Students in Pre-Kindergarten must be 4 years old before 30 September of the year in which they enrol.

### Classes in Pre-Kindergarten and Kindergarten

Pre-Kindergarten and Kindergarten classes are generally no more than 18 pupils. Each Early Childhood classroom has one full time teacher and also one full time teaching assistant. The class teacher teaches the core subjects of Language Arts, Mathematics, Science, and Social Studies. Students visit specialists for instruction in Art, Music, Physical Education, Library, Information Technology, and Languages and Cultures.

### Pre-Kindergarten/Kindergarten Philosophy Statement

In our Pre-Kindergarten and Kindergarten classes, we recognise, value, and nurture each child's uniqueness and worth. We believe it is vital to nourish natural enthusiasm for learning and build confidence and self-esteem. Our school provides a safe, positive environment where our pupils' diverse cultural backgrounds, abilities, and interests are celebrated.

Children enter school at various stages of social, emotional, physical, and academic development. Our teachers strive to meet each child's individual needs and learning styles within those four domains.

Through years of experience, we know that play is a powerful tool for learning. Experiences with sand, water, building blocks, dramatic play, table toys, art materials, music, outdoor play, games, and computers are integral to a child's development. Play activities encourage exploration and experimentation, spark curiosity and imagination, build children's abilities to solve problems, and facilitate the development of fine and gross motor skills. In addition, play also provides children with opportunities to experiment with language and work cooperatively with others.

### Classes in 1<sup>st</sup>-4<sup>th</sup> Grades

Our 1<sup>st</sup> Grade classes normally have up to 18 students. Classes in 2<sup>nd</sup>-4<sup>th</sup> Grades are generally no more than 20 pupils. Each class has one full time teacher. The class teacher teaches the core subjects of Language Arts, Maths, Science, and Social Studies. Students visit specialists for instruction in Art, Music, Physical Education, Library, Information Technology, and Languages and Cultures (1<sup>st</sup>-3<sup>rd</sup> Grades) and Spanish (4<sup>th</sup> Grade).

### 1<sup>st</sup>-4<sup>th</sup> Grades Philosophy Statement

In the Lower School we recognise that children come to us as distinct individuals with unique experiences, backgrounds, abilities, and interests. Our teachers promote cross-cultural understanding, and differentiate instruction to meet the students' varying needs, abilities, and learning styles. We provide a balanced educational programme within a safe, stimulating environment, so that each child can learn and grow to his/her fullest potential. We promote the acquisition of social skills and the development of characteristics of successful learners. Through developmentally appropriate experiences, we expect each pupil to:

- Think purposefully
- Direct his/her own learning
- Communicate effectively
- Work productively with others
- Act responsibly as a citizen
- Demonstrate a healthy attitude to life and learning.

## About our Classes (2 of 2)

As independent thinkers and learners, our pupils are encouraged to think both critically and creatively in a spirit of cooperation and open-minded inquiry. We stress the ability to work well in teams as well as individually. Through teamwork, pupils improve their communication skills, cooperative behaviours, and learn to value others.

Our Language Arts programme is designed to help students acquire the ability to write and speak well, and to examine, process, and use information gained through listening and reading skills.

Problem solving, critical thinking, and mathematical computation skills are strengthened through a balanced approach. Our Lower School curriculum also includes instruction in Science, Social Studies, Art, Music, Physical Education, Language and Culture, Library Skills and Technology. Further, Spanish and standardised testing begin in 4<sup>th</sup> Grade. Learning support services and instruction in English as an Additional Language (EAL) are also available through a combination of in-class and pull-out support.

We believe in the value of teaching through integrated units. Integrating a topic across relevant subject areas makes good teaching and learning sense because it provides a common framework, making learning more meaningful, relevant, and connected. Brain based research informs us that learning is better understood and retained longer if children see connections. Children's progress is regularly assessed, and the results provide the basis for further instructional decisions.

Communication and support between home and school are critical to us. We firmly believe that parental involvement is an essential ingredient in providing a quality education. We encourage parents to be actively involved in their child's education.

## Reporting to Parents

### Progress Reports

The academic calendar is divided into four quarters. Progress reports in 1<sup>st</sup>-4<sup>th</sup> Grades are sent home at the end of each quarter. Written progress reports for Pre-Kindergarten and Kindergarten pupils are sent home each semester. Two quarters comprise one semester.

Excerpts from our developmental continuums (Reading, Writing, and English as an Additional Language) are part of our progress reports during the second and fourth quarters. A continuum is a list of descriptions of various stages of development based on widely held expectations. By plotting each child's progress on the continuums, we provide parents with specific, meaningful information about what their child knows and can do, and what he/she will be working toward. Teachers place a date (either January or June) next to a descriptor to mark the time when the skill is being displayed consistently and independently. It is expected that some pupils will continue to spend time on skills even after mastery, and progress (though still taking place) may not be apparent on the continuum, especially at high, complex levels. It is important to note that it is quite normal to have an uneven profile; in fact it is quite acceptable for a child's progress to span several different phases of these continuums.

Continuums become part of our student led conferences in the spring when pupils share their self-assessments, reflections, and goals with their parents.

### Student Led Conferencing in 1<sup>st</sup>-4<sup>th</sup> Grades

Our philosophy of education focuses on teaching that is highly interactive, engaging students in making sense of ideas and applying what they learn to help them think critically, solve problems, and become self-directed learners. One way we achieve this is through student led conferencing.

Traditional parent teacher conferences that support the initial phases of building the home school connection take place every autumn. Student led conferences occur in the spring and do not replace traditional conferences. Parents are welcome to schedule appointments with teachers throughout the year.

Student led conferences are 45 minutes in length (including time for feedback and travel to the next conference). Each child has an agenda to follow to keep him on track as he leads his parents through a carefully selected collection of his work. The selected pieces might represent different phases of learning – some may be first drafts, some may be finished products and examples of his best work.

## Reporting to Parents

Each child shares his goals, reflections and self-evaluations, as well as the teacher's comments. Parents have the opportunity to actively listen to their child, ask questions, and give feedback, encouragement and support. Depending on the class, there may be one or more families in the room at the same time. The teacher manages the time and facilitates, giving cues to children and/or clarifying when necessary.

By involving students in their own evaluation, we help them to take more responsibility for their learning and empower them to set and achieve meaningful goals for themselves. Students become more aware of their own strengths, weaknesses and personal learning style. Pupils self-evaluate, reflect, set goals, and monitor their own learning. Developing the critical thinking skills and the presentation skills necessary for leading a conference about their own progress is a powerful learning experience for students – one which goes well beyond acquiring the basic skills of reading, writing and arithmetic.

## Differentiating Instruction: Meeting the needs of each child

We strive to meet each child's individual needs and learning styles through differentiation of instruction. Differentiation is the provision of appropriate learning experiences for varying ability levels and language levels in a class. It is achieved by modifying:

- The nature of the task
- The organisation of the learners
- The teaching strategies employed
- The use of supportive resources.

We are better able to make these modifications when our classes are small and when we team-teach alongside our support services teachers. Support services teachers are in classrooms during many core classes (reading, writing, and mathematics) to better support students. This is what we call our "inclusion model". This model results in a higher ratio of teachers per students, enabling us to challenge and enrich or support, as needed. Though we still have some pull-out support available for our learning support and English as an Additional Language (EAL) students, most support provided is in class.

## Challenge and Enrichment

Some of our families come from educational systems where children are screened for "talented and gifted" programmes, but like most international schools, we utilise the practice of differentiation to meet the needs of our students.

In our Lower School, we recognise that children come to us as distinct individuals with varying experiences, backgrounds, interests, and abilities. We believe that every child excels in some way, intellectually or otherwise. The question is not "How smart are you?" but rather, "How are you smart?" Some children excel in specific topics within a subject. For example, some are whizzes at maths computation, while others are clever problem solvers, etc. In addition, we have children with mild learning disorders who also have exceptional intellectual ability. Students grow when challenged and encouraged; hence opportunities should be provided to extend and enrich our children's talents.

We strive to challenge and enrich all of our students within our mainstream classrooms. In recent years, our school has placed differentiation of instruction high amongst our goals. We have invested in professional development for our faculty and a generous supply of resources. Parents are encouraged to speak with the classroom teacher whenever they have concerns about the level of challenge to which their child is exposed.

## Learning Support

ACS Hillingdon is able to accommodate students who, because of differences or difficulties in learning styles, require additional academic support. Students with mild to moderate learning disabilities who are able to follow the regular programme with some support service will be accepted, provided that resources are available. Determination regarding the acceptance of students is always made on an individual basis and the final decision rests with the Head of School.

Parents are required to provide all remedial or special education records. These may include Individual Education Plans, test results, psychological assessments, and medical reports. The admissions committee will review these documents prior to acceptance into the school. The student's enrolment may be jeopardised should information be withheld.

## Differentiating Instruction: Meeting the needs of each child

Some students with learning difficulties may be accepted on a probationary basis. Each student's progress will be regularly reviewed to determine if the student will continue at ACS Hillingdon International School.

We may recommend that the child and parents consult other professionals. We do not have the services of an educational psychologist, speech, occupational, or physical therapists on site, but we are able to provide parents with the names of various professionals in the London area that other parents have consulted in the past.

### English as an Additional Language (EAL)

The EAL programme in the Lower School supports students for whom English is an additional language. This may involve withdrawing children from the mainstream class or giving them extra support in the classroom. If there is a question as to whether or not a student should attend EAL classes, the decision will be made by the principal in consultation with the teachers and parents.

The aims of the programme are to increase the receptive and expressive skills of reading, writing, speaking and listening. The focus is on developing oral fluency, communication skills and academic skills.

Instruction involves presentation of language based topics which aid the acquisition of vocabulary and grammar. A large proportion of time is allocated to supporting and reinforcing the topics being studied within the classroom. This enables the children to participate more fully in their own classroom activities and discussions.

Complete beginners in 1<sup>st</sup>-4<sup>th</sup> Grades are withdrawn from class for varying amounts of EAL instruction. As students become more confident in English, they receive less pull-out support and more in-class assistance from their EAL teachers.

Student progress is documented on the EAL speaking and listening continuum and progress is shared with parents regularly.

## Field Trips

The London area offers ACS Hillingdon students exciting out of school field trips that enhance every aspect of our curriculum. In the past every grade level has taken advantage of this great resource. Parental permission is required for participation in all field trips. What follows are some of the places students have visited in the past.

Pre-Kindergarten: Willows Farm Village, Tate Gallery, Theatre visits

Kindergarten: Science Museum, Tate Gallery, London Aquarium, Legoland, Theatre visits

1<sup>st</sup> Grade: Syon Park, Science Museum, National Gallery, Chiltern Open Air Museum, Theatre visits

2<sup>nd</sup> Grade: London Transport Museum, Science Museum, Roald Dahl Museum, London Eye, Theatre visits

3<sup>rd</sup> Grade: The Wallace Collection, Warwick Castle, Bayeux Tapestry (Reading), Kew Gardens, Theatre visits

4<sup>th</sup> Grade: Natural History Museum, Globe Theatre, Henry Moore Sculpture Park, Bath, Golden Hinde.

## Artist in Residence Programme

The Artist in Residence programme enables teachers to bring artists and others with special talents and skills into the School to support the curriculum and present real experiences for the students. In the past, authors such as Anne Fine, Colin McNaughton, Anthony Browne, Phillip Pullman, Pat Hutchens, James Mayhew, and Paul Geraghty have informed, entertained and inspired our students. In addition, we have had visits from animation experts, the Roman Legion XIII, the Medieval Museum, a drummer, a puzzle company, and a company who brings Legos (resulting in teamwork PreK-4 in building an entire town of Lego).

## Community Service

We believe in the importance of teaching our students the value of community service. Our Lower School student council meets regularly. This group of 4<sup>th</sup> Graders leads the Lower School in participating in community service events and fundraisers.

## Clubs and Activities

Extracurricular activities are an important facet of a well balanced programme. Students need opportunities to socialise, learn new skills, and have fun together. In our international community, with our students' homes spread out over the western side of London, we have found that after school and weekend activities provide children with additional occasions to see their friends. We offer various clubs and activities at differing times of the week and school year. Some activities cost money. Some activities are only available to certain grade levels. We always welcome parent volunteers to further supplement our programme. After school activities are normally from 3:15pm until our late buses depart at 5:00pm. The late bus service is not door-to-door; we advise parents to be familiar with the Transportation Handbook.

### Tuesday After School Clubs (1<sup>st</sup>-4<sup>th</sup> Grades)

Lower School teachers offer clubs in both the autumn and spring to students in 1st-4<sup>th</sup> Grades. Club sessions vary depending on interest and teacher availability. In the past, clubs have included: kickball, card club, dance, computer club, choir, book club, games, cooking club, drama, homework club, Harry Potter club, multicultural club, printmaking, etc.

### The Native Language Enrichment Programme (NLE) (1<sup>st</sup>-4<sup>th</sup> Grades)

Though this is an after school programme rather than a club, we include it here as it is outside of school hours. This is for children who want to keep up their skills in their home language (when that language is not English). This is not a foreign language programme, and as such, children will be fluent in their home language. There must be a minimum of THREE children who are native speakers in order to begin the search for a teacher for a given language.

### Student Council

Student Council is open to our 4<sup>th</sup> Graders. They may meet during or after school. This group leads our Lower School in community service events and fundraisers.

### 4<sup>th</sup> Grade Soccer

The ACS Hillingdon Athletic Department offers soccer to our 4<sup>th</sup> Graders.

### Scouts

Parent volunteers run both Cub Scout and Brownie/Girl Scout programmes.

### Music Lessons

Music lessons may be available depending on instructor availability. The school has a list of private instructors, and a fee is charged.

### Saturday Morning Activities (Pre-K to 4<sup>th</sup> Grade)

This programme is designed specifically for Lower and Middle School pupils. It is an ideal opportunity for students and parents to become involved in the ACS community. Activities take place at the school on Saturday mornings for a fee. A variety of sporting activities take place over three seasons. Generally, the autumn season includes soccer, gymnastics, tennis, and flag football. The winter season brings basketball and gymnastics. Tennis, gymnastics and soccer take place in the spring. In addition, Mandarin classes are offered all year.

## Curriculum Introduction

The Lower School curriculum revolves around a core of Language Arts (reading, writing, listening, and speaking), Mathematics, Science and Social Studies. Additionally, specialists teach Art, Music, Physical Education, Languages and Cultures, Spanish, Information Technology, and Library Skills. Wherever possible, topics are cross-curricular and drama is incorporated. We use a team teaching approach to differentiate instruction for students who require additional learning support, English as an Additional Language classes, or enrichment. Homework is assigned regularly. Children's progress is frequently assessed, and the results provide the basis for further instructional decisions.

## Language Arts

The primary goal of our Language Arts programme is to encourage children to become enthusiastic, competent, and confident life long communicators. Our programme centres on the interrelated skills of reading, writing, listening and speaking. We expose children to high quality materials and resources. As children grow and develop, their language skills become increasingly more sophisticated. Through differentiated lessons, children are challenged to reach their fullest potential.

A joint statement by the National Association for the Education of Young Children (USA) and the International Reading Association begins with this powerful declaration: "Learning to read and write is critical to a child's success in school and later in life. One of the best predictors of whether a child will function competently in school and go on to contribute actively in our increasingly literate society is the level to which the child progresses in reading and writing. Although reading and writing abilities continue to develop throughout the life span, the early childhood years – from birth through age eight – are the most important period for literacy development."

At ACS Hillingdon, we utilise Dr. Bonnie Campbell Hill's reading and writing continuums. A continuum is a list of descriptions of various stages of development based on widely held expectations. Our reading and writing continuums provide descriptors of what children can do as they progress through each stage of development. Both continuums appear in this handbook in their entirety.

It is important to remember that reading and writing development takes time. Young learners need multiple reading and writing experiences to grow as literacy learners. Adults play a crucial role in facilitating children's development and movement along the reading and writing continuums. Children will be at different stages at different times depending on a myriad of factors. As parents we encourage you to celebrate what your child can do as a developing reader and writer.

## Reading (1 of 3)

Reading is taught explicitly in our Language Arts lessons and reinforced throughout all the curricular areas. Our school is home to a wide variety of children's literature. Most children enter school with some pre-reading skills. These are further developed in our Pre-Kindergarten and Kindergarten programmes, and if a child is showing signs of readiness, formal reading instruction will begin there. All children are taught to formally read in 1<sup>st</sup> Grade. At that level, reading materials include simple, predictable text. Phonics instruction is an integral part of our programme. As children build fluency (usually by 2<sup>nd</sup> Grade), they begin to read chapter books and assorted class novels, and as they progress through the Lower School, students make more mature reading choices. Reading lends itself to rich discussions about multicultural awareness, ethics, moral values, and life in general, and teachers take advantage of "teachable moments". Twice per year, as part of self-assessment, each child sets individual reading goal(s) to work towards. The Developmental Reading Assessment (DRA) is regularly administered to all students in Kindergarten through 4<sup>th</sup> Grade, and progress is measured on our reading continuum. The reading continuum is part of our progress report at every level in the Lower School.

What follows is a description of the first eight stages of the reading continuum. Each of these descriptions correlates with a stage on the reading continuum. The reading continuum is included at the end of this section.

### **Pre-conventional Readers: Ages 3-5**

Pre-conventional learners display curiosity about books and reading. They enjoy listening to books and may have favourites. Children focus mostly on illustrations at this stage as they talk about the story. They love songs and books with rhythm, repetition and rhyme. Students participate in reading by chiming in when adults read aloud, and children at this age often enjoy hearing the same stories read aloud over and over. Pre-conventional readers are interested in environmental print, such as restaurant and traffic signs, labels, and logos. Children hold books correctly, turning the pages as they look at the illustrations. They know some letter names and can read and write their first name.

### **Emerging Readers: Ages 4-6**

At the Emerging stage, children are curious about print and see themselves as potential readers. They may pretend to read familiar poems and books. Children rely on the illustrations to tell a story but are beginning to focus on the print. They participate in readings of familiar books and often begin to memorise favourites. Children begin to make connections between books read aloud, and their own lives and experiences. They enjoy rhyming and playing with words. Emerging readers know most letter names and some letter sounds. They recognise some names, signs and familiar words. These children are often highly motivated to learn to read and may move through this stage quickly.

### **Developing Readers: Ages 5-7**

These children see themselves as readers. They can read books with simple patterns, like *Dear Zoo* (Rod Campbell, 1982) or *Quick as a Cricket* (Audrey Wood, 1990) or simple texts, like *Go Dog Go* (P.D. Eastman, 1961). Later in this stage they can read books with patterns that vary more, like *Just for You* (Mercer Mayer, 1975) or *Cookie's Week* (Cindy Ward, 1988). They begin to look at books independently for short periods of time (5-10 minutes) and like to share books with others. Developing readers know most letter sounds and can read simple words (such as "dog" and "me") and a few sight words (such as "have" and "love"). Recognising patterns and word families helps readers generalise what they know about one word to similar new words. They use both print and illustrations to make meaning as they read. Children often read aloud word-by-word, particularly with a new text. They gain fluency with familiar books and repeated readings. These young readers can retell the main idea of a story and participate in whole group discussions of literature. This is another stage that children may pass through quickly.

### **Beginning Readers: Ages 6-8**

Beginning readers rely more on print than on illustrations to create meaning. When they read aloud, they understand basic punctuation, such as periods, question marks and exclamation marks. At first, they read simple early readers, like *Sammy the Seal* (Syd Hoff, 1959) and picture books with repetition, like *The Napping House* (Audrey Wood, 1984). Students take a big step forward when they learn to read longer books, like *The Cat in the Hat* (1957) or *Green Eggs and Ham* (1960) by Dr. Seuss.

Later in this stage, they can read more difficult early readers, such as *Frog and Toad Together* (Arnold Lobel, 1971) and more challenging picture books, such as *A Bargain for Frances* (Russell Hoban, 1970). They often enjoy simple series books, such as the *Little Bear* books (Else Minarik) or the humorous *Commander Toad* series (Jane Yolen). Many of these books are labelled "I Can Read" books on the covers.

## Reading (2 of 3)

Beginning readers take a developmental leap as they begin to integrate reading strategies (meaning, sentence structure and phonics cues). They are able to read silently for 10-15 minutes. These children know many words by sight and occasionally correct themselves when their reading doesn't make sense. They are able to discuss the characters and events in a story with the teacher's help. When they read simple nonfiction texts, such as *Mighty Spiders* (Fay Robinson, 1996) or *Dancing with the Manatees* (Faith McNulty, 1994), they are able to talk about what they learn. It may take significantly longer for children to move through this stage since there is a wide range of text complexity at this level.

### Expanding Readers: Ages 7-9

At the Expanding stage, students solidify skills as they read beginning chapter books. Many children read series books and re-read old favourites while stretching into new types of reading. In the early part of this stage, they may read short series books, like *Pee Wee Scouts* (Judy Denton) or *Pinky and Rex* (James Howe). As they build fluency, students often devour series books, like *Cam Jensen* (David Adler), *Bailey School Kids* (Debbie Dadey and Marcia Thornton Jones) or *Amber Brown* (Paula Danziger). They may also read nonfiction texts on a topic, such as *Pompeii...Buried Alive!* (Edith Kunhardt, 1987). Students are learning how to choose books at their reading level and can read silently for 15-30 minutes. They read aloud fluently and begin to self-correct when they make mistakes or their reading doesn't make sense. They can usually figure out difficult words but are still building their reading vocabulary. At this stage, children use a variety of reading strategies independently. These students make connections between reading and writing and their own experiences. Expanding readers are able to compare characters and events from different stories. They can talk about their own reading strategies and set goals with adult help.

### Bridging Readers: Ages 8-10

This is a stage of consolidation when students strengthen their skills by reading longer books with more complex plots, characters and vocabulary. They often choose well-known children's books, such as the *Ramona* books (Beverly Cleary) or the *Encyclopaedia Brown* series (Donald Sobol). Students also enjoy more recent series, like *Goosebumps* (R.L. Stine), *Animorphs* (K.A. Applegate) and the *Baby-sitters Club* books (Ann Martin). They may broaden their interests by reading a wider variety of materials, such as *Storyworks*, *Contact for Kids*, or *Sports Illustrated for Kids* magazines, or *The Magic Schoolbus* (Joanna Cole) nonfiction series. They begin to read aloud with expression and often memorise some of the humorous poetry by Shel Silverstein and Jack Prelutsky. With adult guidance, Bridging readers can use resources, such as encyclopaedias and the Internet, to find information. They can respond to issues and ideas in books as well as facts and story events. Many students are able to make connections between their reading and other books and authors. Students at this stage begin to support their opinions with reasons and examples during small group literature discussions.

### Fluent Readers: Ages 9-11

Students are well launched as independent readers by the Fluent Stage. They choose to read a variety of challenging literature for longer periods of time (30-40 minutes). The books they choose have fully developed characters and challenging plots. They enjoy reading survival stories like *Hatchet* (Gary Paulsen) or *On the Far Side of the Mountain* (Jean Craighead George). Some children prefer fantasy books such as *James and the Giant Peach* (Roald Dahl) or mysteries like *Nancy Drew* (Carolyn Keene) or *Hardy Boys* (Franklin Dixon). Many Fluent readers enjoy magazines like *World: National Geographic for Kids*, *American Girl* or *Time for Kids*. Students are able to use resources such as the dictionary and thesaurus. They also use the Internet and encyclopaedias to find information. At this stage, children contribute thoughtful responses when they talk or write about books. Their comprehension reaches a new level when they "read between the lines" to get at deeper levels of meaning. They are learning to evaluate their own reading strategies and to set goals.

### Proficient Readers: Ages 10-13

At this stage, students choose books on their own and like to read complex children's literature. They enjoy reading books from other countries and time periods. Students seek a variety of genres to read such as realistic fiction, historical fiction, biographies, nonfiction and poetry. The fiction they choose to read often deals with complex issues such as survival in *Island of the Blue Dolphins* (Scott O'Dell), death in *Bridge to Terabithia* (Katherine Paterson) or war in *Number the Stars* (Lois Lowry). Proficient readers are able to talk about novels at a deeper level and discuss the theme, author's purpose, style and author's craft. Students are learning to use examples from their reading to support their opinions. They can locate information on a topic using several resources independently. Proficient readers enjoy reading magazines such as *Zillions: Consumer Reports for Kids*. At this stage, children are thoughtful participants in book discussions and often wish they had more time to read in their busy lives.

Reading (3 of 3)

READING CONTINUUM				
Preconventional Ages 3–5	Emerging Ages 4–6	Developing Ages 5–7	Beginning Ages 6–8	Expanding Ages 7–9
<ul style="list-style-type: none"> <li>▣ Begins to choose reading materials (e.g., books, magazines, and charts) and has favourites</li> <li>▣ Shows interest in reading signs, labels, and logos (environmental print)</li> <li>▣ Recognises own name in print</li> <li>▣ Holds book and turns pages correctly</li> <li>▣ Shows beginning/end of book or story</li> <li>▣ Knows some letter names</li> <li>▣ Listens and responds to literature</li> <li>▣ Comments on illustrations in books</li> <li>▣ Participates in group reading (books, rhymes, poems, and songs).</li> </ul>	<ul style="list-style-type: none"> <li>▣ Memorises pattern books, poems, and familiar books</li> <li>▣ Begins to read signs, labels, and logos (environmental print)</li> <li>☉ Demonstrates eagerness to read</li> <li>▣ Pretends to read</li> <li>▣ Uses illustrations to tell stories</li> <li>▣ Reads top to bottom, left to right, and front to back with guidance</li> <li>▣ Knows most letter names and some letter sounds</li> <li>▣ Recognises some names and words in context</li> <li>▣ Makes meaningful predictions with guidance</li> <li>▣ Rhymes and plays with words.</li> <li>▣ Participates in reading of familiar books and poems</li> <li>▣ Connects books read.</li> </ul>	<ul style="list-style-type: none"> <li>▣ Reads books with simple patterns</li> <li>▣ Begins to read independently for short periods (5–10 minutes)</li> <li>☉ Discusses favourite reading material with others</li> <li>▣ Relies on illustrations and print</li> <li>▣ Uses finger-print-voice matching</li> <li>▣ Knows most letter sounds and letter clusters</li> <li>▣ Recognises simple words</li> <li>▣ Uses growing awareness of sound segments (e.g., phonemes, syllables, rhymes) to read words</li> <li>▣ Begins to make meaningful predictions (text features) and authors in literature</li> <li>▣ Retells main event, or idea in literature discussions</li> <li>▣ Participates in guided literature discussions</li> <li>☉ Sees self as reader</li> <li>☉ Explains why literature is liked/disliked during class discussions with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>▣ Reads simple early-reader books</li> <li>▣ Reads harder early-reader books</li> <li>▣ Reads and follows simple written directions with guidance</li> <li>▣ Identifies basic genres (e.g., fiction, nonfiction, and poetry)</li> <li>▣ Uses basic punctuation when reading orally</li> <li>☉ Chooses reading materials independently</li> <li>☉ Learns and shares information from reading</li> <li>▣ Uses meaning cues (context)</li> <li>▣ Uses sentence cues (grammar)</li> <li>▣ Uses letter/sound cues and patterns (phonics)</li> <li>▣ Recognises word endings, common contractions, and many high frequency words</li> <li>▣ Begins to self-correct with guidance</li> <li>▣ Retells beginning, middle, and end with guidance</li> <li>▣ Discusses characters and story events with guidance</li> <li>☉ Identifies own reading behaviours with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>▣ Reads easy chapter books</li> <li>▣ Chooses, reads, and finishes a variety of materials at appropriate level with guidance</li> <li>▣ Begins to read aloud with fluency</li> <li>☉ Reads silently for increasingly longer periods (15–30 minutes)</li> <li>▣ Uses reading strategies appropriately depending on the text and purpose</li> <li>▣ Uses word structure cues (e.g., root words, prefixes, suffixes, word chunks) when encountering unknown words</li> <li>▣ Increases vocabulary by using meaning cues (context)</li> <li>▣ Self-corrects for meaning</li> <li>▣ Follows written directions</li> <li>▣ Identifies chapter titles and table of contents (text organisers)</li> <li>▣ Summarises and retells story events in sequential order</li> <li>▣ Responds to and makes personal connections with facts, characters, and situations in literature</li> <li>▣ Compares and contrasts characters and story events</li> <li>▣ "Reads between the lines" with guidance</li> <li>☉ Identifies own reading strategies and sets goals with guidance</li> </ul>
<p><b>KEY</b></p> <ul style="list-style-type: none"> <li>▣ Types of Texts and Oral Reading</li> <li>▣ Comprehension and Response</li> <li>☉ Attitude</li> <li>☉ Self-Evaluation</li> <li>☉ Reading Strategies</li> </ul> <p>Developmental Continuums – Copyright © 2001 Christopher-Gordon Publishers</p>				
READING CONTINUUM				
Bridging Ages 8–10	Fluent Ages 9–11	Proficient Ages 10–13	Connecting Ages 11–14	Independent
<ul style="list-style-type: none"> <li>▣ Reads medium level chapter books</li> <li>▣ Chooses reading materials at appropriate level</li> <li>▣ Expands knowledge of different genres (e.g., realistic fiction, historical fiction, and fantasy)</li> <li>▣ Reads aloud with expression</li> <li>▣ Uses resources (e.g., encyclopedias, CD-ROMs, and nonfiction texts) to locate content, captions, glossary, and index</li> <li>▣ Gathers information by using the table of contents, captions, glossary, and index (text organisers) with guidance</li> <li>▣ Gathers and uses information from graphs, charts, tables, and maps with guidance</li> <li>▣ Increases vocabulary by using context cues, other reading strategies, and resources (e.g., dictionary and thesaurus) with guidance</li> <li>▣ Demonstrates understanding of the difference between fact and opinion independently</li> <li>▣ Follows multi-step written directions</li> <li>▣ Discusses setting, plot, characters, and point of view (literary elements) with guidance</li> <li>▣ Responds to issues and ideas in literature as well as facts or story events</li> <li>▣ Makes connections to other authors, books, and perspectives</li> <li>▣ Participates in small group literature discussions with guidance</li> <li>▣ Uses reasons and examples to support ideas and opinions with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>▣ Reads challenging children's literature of genres with guidance</li> <li>▣ Begins to develop strategies and criteria for selecting reading materials</li> <li>▣ Reads aloud with fluency, expression, and confidence</li> <li>☉ Reads silently for extended periods (30–40 min)</li> <li>▣ Begins to use resources (e.g., encyclopedias, articles, internet, and nonfiction texts) to locate information</li> <li>▣ Gathers information using the table of contents, captions, glossary, and index (text organisers) independently</li> <li>▣ Begins to use resources (e.g., dictionary and thesaurus) to increase vocabulary in different subject areas</li> <li>▣ Begins to discuss literature with reference to setting, plot, characters, and theme (literary elements), and author's craft (literary elements), and author's craft</li> <li>▣ Generates thoughtful oral and written responses in small group literature discussions with guidance</li> <li>▣ Begins to use new vocabulary in different subjects and in oral and written response to literature</li> <li>▣ Begins to gain deeper meaning by "reading between the lines"</li> <li>☉ Begins to set goals and identifies strategies to improve reading.</li> </ul>	<ul style="list-style-type: none"> <li>▣ Reads complex children's literature texts (e.g., want-ads, brochures, schedules, catalogs, manuals) with guidance</li> <li>☉ Develops strategies and criteria for selecting reading materials independently</li> <li>▣ Uses resources (e.g., encyclopedias, articles, internet, and nonfiction texts) to locate information independently</li> <li>▣ Gathers and analyses information from graphs, charts, tables, and maps with guidance</li> <li>▣ Integrates information from multiple nonfiction sources to deepen understanding of a topic with guidance</li> <li>▣ Uses resources (e.g., dictionary and thesaurus) to increase vocabulary independently</li> <li>▣ Identifies literary devices (e.g., similes, metaphors, personification, and foreshadowing)</li> <li>▣ Discusses literature with reference to theme, author's purpose, and style (literary elements), and author's craft (literary elements), and author's craft</li> <li>▣ Begins to generate in-depth responses in small group literature discussions</li> <li>▣ Begins to generate in-depth written responses to literature</li> <li>▣ Uses increasingly complex vocabulary in different subjects and in oral and written response to literature</li> <li>▣ Uses reasons and examples to support ideas and conclusions</li> <li>▣ Probes for deeper meaning by "reading between the lines" in response to literature.</li> </ul>	<ul style="list-style-type: none"> <li>▣ Reads complex children's literature and Young adult literature</li> <li>▣ Selects, reads, and finishes a wide variety of genres independently</li> <li>☉ Begins to choose challenging reading materials and projects</li> <li>▣ Integrates nonfiction information to develop deeper understanding of a topic independently</li> <li>▣ Begins to gather, analyse, and use information from graphs, charts, tables, and maps</li> <li>▣ Generates in-depth responses and sustains small group literature discussions</li> <li>▣ Generates in-depth written responses to literature</li> <li>▣ Begins to evaluate, interpret, and analyse reading content critically</li> <li>▣ Begins to develop criteria for evaluating literature</li> <li>▣ Seeks recommendations and opinions about literature from others</li> <li>☉ Sets reading challenges and goals independently.</li> </ul>	<ul style="list-style-type: none"> <li>▣ Reads young adult and adult literature of sophisticated materials with ease (e.g., newspapers, magazines, manuals, novels, and poetry)</li> <li>▣ Reads and understands informational texts (e.g., manuals, consumer reports, applications, and forms)</li> <li>▣ Reads challenging material for pleasure independently</li> <li>☉ Reads challenging material for information and to solve problems independently</li> <li>☉ Perseveres through complex reading tasks</li> <li>▣ Gathers, analyses, and uses information from graphs, charts, tables, and maps independently</li> <li>▣ analyses literary devices (e.g., metaphors, imagery, irony, and satire)</li> <li>▣ Contributes unique insights and supports opinions in complex literature discussions</li> <li>▣ Adds depth to responses to literature by making insightful connections to other reading and experiences</li> <li>▣ Evaluates, interprets, and analyses reading content critically</li> <li>▣ Develops and articulates criteria for evaluating literature</li> <li>☉ Pursues a widening community of readers independently.</li> </ul>

## Writing (1 of 3)

Writing is taught explicitly in our Language Arts lessons and reinforced throughout all the curricular areas. Depending on the age of a child, the audience, and the topics being studied, children write in a variety of genres. As children move through the Lower School, they learn to write narratives, recounts, procedures, reports, explanations and expositions. From 2<sup>nd</sup> Grade onwards, students participate in Writers' Workshop. During this time, instruction is individualised and pupils are taught the writing steps. The writing process includes brainstorming (students must consider their goal, audience, and format), writing, revising, editing and producing a final copy. Spelling, grammar, and punctuation are taught through class mini lessons, and to individuals during the writing process. Six plus One Trait writing is part of our programme and students are encouraged to refer back to the seven traits (ideas and content, organisation, voice, word choice, sentence fluency, conventions, and presentation). Teachers and parent volunteers work with individuals and small groups, assisting with the editing process, and providing positive, constructive feedback. Many final copies are "published" and shared with others. Twice per year, as part of self-assessment, each child sets individual writing goal(s) to work towards. Student progress is measured on the writing continuum. The writing continuum is part of our progress report at each grade level in our Lower School.

What follows is a description of the first eight stages of the writing continuum. Each of these descriptors correlates with a stage on the writing continuum. The writing continuum is included at the end of this section.

### Pre-conventional Writers: Ages 3-5

At the Pre-conventional stage, children rely on their pictures to show meaning. They often pretend to write by using scribble writing. Children sometimes make random letters and numbers to represent words. Some children add "words" to their pictures to share meaning. They often tell stories about their pictures.

### Emerging Writers: Ages 4-6

These children begin to see themselves as writers. Some students begin to label their pictures with a few letters. They may write their name and some familiar words in a way that others can read. Students may write just the beginning or the beginning and ending sounds they hear. At the Emerging stage, children often write everything in upper case letters. They may pretend to read their own writing, often elaborating to embellish their stories.

### Developing Writers: Ages 5-7

Students at the Developing stage write names and familiar words. They begin to write one or two short sentences, such as "MI DG PLS" ("My dog plays"). Developing writers use beginning, middle and ending sounds to make words. For example, learn might be written "LRn." This developmental reliance on the sounds of letters is called "invented spelling", "phonetic spelling", or "temporary spelling". At this stage, students spell some high frequency words correctly. Students often interchange upper and lower case letters and experiment with capital letters and simple punctuation. Their writing goes from left to right and begins to include spacing. Students are able to read their own compositions aloud immediately after writing, but later may not remember what they wrote.

### Beginning Writers: Ages 6-8

At the Beginning stage, children write recognisable short sentences with some descriptive words. They can write several sentences about their lives and experiences or simple facts about a topic. Students sometimes use capitals and periods correctly. Many letters are formed legibly and adults can usually read what the child has written. Students spell some words phonetically and others are spelled correctly. They usually spell simple words and some high frequency words correctly as they become more aware of spelling patterns. Beginning writers often start a story with "Once upon a time" and finish with "The End". Children may revise by adding details with the teacher's help. They enjoy sharing their writing with others. Students may stay at this stage longer than the previous ones as they build fluency.

### Expanding Writers: Ages 7-9

Students at this stage can write poems and stories about their experiences and interests, as well as short nonfiction pieces. They use complete sentences and their writing contains a logical flow of ideas. Their stories sometimes contain a beginning, middle and end. Expanding writers can add description, detail and interesting language with the teacher's guidance. They enjoy reading their writing aloud and are able to offer specific feedback to other students. Their editing skills begin to grow, although students may still need help as they edit for simple punctuation, spelling and grammar. Their writing is legible and they no longer labour over the physical act of writing. Students spell many common words correctly as they begin to grasp spelling patterns and rules.

## Writing (2 of 3)

### **Bridging Writers: Ages 8-10**

Bridging writers begin to develop and organise their ideas into paragraphs. Students at this stage are able to write about their feelings and opinions, as well as fiction, poetry and nonfiction. However, this is a time of practice and their writing is often uneven. Writers may focus on one aspect of a piece and pay less attention to others. For example, a student may focus on strong verbs and descriptive language, while conventions and organisation move to the back burner. Students still require a great deal of adult modelling and guidance at this stage. Bridging writers are learning that meaning can be made more precise by using description, details and interesting language. Students experiment with dialogue in their writing. They are able to edit for spelling, punctuation and grammar. They also experiment with different types of writing as they compose longer pieces in various genres. Bridging writers use the writing process to revise, edit and publish their work with adult support.

### **Fluent Writers: Ages 9-11**

Students begin to write organised fiction and nonfiction pieces for different purposes and audiences. The Fluent stage is increasingly complex. Children write stories with multiple characters, problems and solutions with adult support. Dialogue is incorporated more often into their stories. They experiment with leads, endings and complex sentence structures. Students begin to revise for specific writing traits such as organisation or vocabulary. Fluent writers are able to edit for punctuation, grammar and spelling independently. Students at this stage enjoy writing poetry with carefully chosen language. They begin to talk about the qualities of good writing in different genres. At this level, children begin to read like writers and incorporate the author's style into their own work.

### **Proficient Writers: Ages 10-13**

Proficient writers are learning to create fiction with detailed settings, characters and well-developed plots. Students are able to revise, edit and publish their work independently. They are strong writers who can write persuasively about their feelings, ideas and opinions. They are learning to use their written voice to express their viewpoint on issues they believe in. Organisation in both fiction and nonfiction is becoming stronger at this stage. They can use imagery, complex sentences, sophisticated language and description independently. Proficient writers are beginning to set their own goals and identify ways in which they can improve as writers.

Writing (3 of 3)

WRITING CONTINUUM				
Preconventional Ages 3–5	Emerging Ages 4–6	Developing Ages 5–7	Beginning Ages 6–8	Expanding Ages 7–9
<ul style="list-style-type: none"> <li>Relies primarily on pictures to convey meaning</li> <li>Begins to label and add "words" to pictures</li> <li>Writes first name</li> <li>Demonstrates awareness that print conveys meaning</li> <li>Makes marks other than drawing on paper (scribbles)</li> <li>Writes random recognisable letters to represent words</li> <li>Tells about own pictures and writing.</li> </ul>	<ul style="list-style-type: none"> <li>Uses pictures and print to convey meaning</li> <li>Writes words to describe or support pictures</li> <li>Copies signs, labels, names, and words (environmental print)</li> <li>Demonstrates understanding of letter/sound relationship</li> <li>Prints with upper case letters</li> <li>Matches letters to sounds</li> <li>Uses beginning consonants to make words</li> <li>Uses beginning and ending consonants to make words</li> <li>Pretends to read own writing</li> <li>Sees self as writer</li> <li>Takes risks with writing.</li> </ul>	<ul style="list-style-type: none"> <li>Writes 1-2 sentences about a topic</li> <li>Writes names and familiar words</li> <li>Generates own ideas for writing</li> <li>Writes from top to bottom, left to right, and front to back</li> <li>Intermixes upper and lower case letters</li> <li>Experiments with capitals</li> <li>Experiments with punctuation</li> <li>Begins to use spacing between words</li> <li>Shows growing awareness of sound segments (e.g. phonemes, syllables, rhymes) to write words</li> <li>Spells words on the basis of sounds without regard for conventional spelling patterns</li> <li>Uses beginning, middle, and ending sounds to make words</li> <li>Begins to read own writing</li> </ul>	<ul style="list-style-type: none"> <li>Writes several sentences about a topic</li> <li>Writes about observations and experiences</li> <li>Writes short nonfiction pieces (simple facts about a topic) with guidance.</li> <li>Chooses own writing topics</li> <li>Reads own writing and notices mistakes with guidance</li> <li>Revises by adding details with guidance</li> <li>Uses spacing between words consistently</li> <li>Forms most letters legibly</li> <li>Writes pieces that self and others can read independently</li> <li>Uses phonetic spelling to write</li> <li>Spells simple words and some high frequency words correctly</li> <li>Begins to use periods and capital letters correctly</li> <li>Shares own writing with others.</li> </ul>	<ul style="list-style-type: none"> <li>Writes short fiction &amp; poetry with guidance</li> <li>Writes a variety of short nonfiction pieces (e.g., facts about a topic, letters lists) with guidance</li> <li>Writes with a central idea</li> <li>Writes using complete sentences</li> <li>Organises ideas in a logical sequence in fiction &amp; nonfiction writing with guidance</li> <li>Begins to recognise &amp; use interesting language</li> <li>Uses several prewriting strategies (e.g., web, brainstorm) with guidance</li> <li>Listens to others' writing &amp; offers feedback</li> <li>Begins to consider suggestions from others about own writing</li> <li>Adds description and detail with guidance</li> <li>Edits for capitals and punctuation with guidance</li> <li>Publishes own writing with guidance</li> <li>Writes legibly</li> <li>Spells most high frequency words correctly and moves toward conventional spelling</li> <li>Identifies own writing strategies and sets goals with guidance.</li> </ul>
<p><b>KEY</b></p> <ul style="list-style-type: none"> <li>Types of Texts</li> <li>Mechanics and Conventions</li> <li>Content and Traits</li> <li>Process</li> <li>Attitude and Self-Evaluation</li> </ul> <p>Developmental Continuums – Copyright © 2001 Christopher-Gordon Publishers</p>				
Bridging Ages 8–10	Fluent Ages 9–11	Proficient Ages 10–13	Connecting Ages 11–14	Independent
<ul style="list-style-type: none"> <li>Writes about feelings and opinions</li> <li>Writes fiction with clear beginning, middle, and end</li> <li>Writes poetry using carefully chosen language with guidance</li> <li>Writes organised nonfiction pieces (e.g., reports, letters, and lists) with guidance</li> <li>Begins to use paragraphs to organise ideas</li> <li>Uses strong verbs, interesting language, and dialogue with guidance</li> <li>Seeks feedback on writing</li> <li>Revises for clarity with guidance</li> <li>Revises to enhance ideas by adding description and detail</li> <li>Uses resources (e.g., thesaurus and word lists) to make writing more effective with guidance</li> <li>Edits for punctuation, spelling, and grammar with guidance</li> <li>Publishes writing in polished format with guidance</li> <li>Increases use of visual strategies, spelling rules, and knowledge of word parts to spell correctly</li> <li>Uses commas and apostrophes correctly with guidance</li> <li>Uses criteria for effective writing to set own writing goals with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>Begins to write organised fiction and nonfiction (e.g., reports, letters, biographies, and autobiographies)</li> <li>Develops stories with plots that include problems and solutions with guidance</li> <li>Creates characters in stories with guidance</li> <li>Writes poetry using carefully chosen language</li> <li>Begins to experiment with sentence length and complex sentence structure</li> <li>Varies leads and endings with guidance</li> <li>Uses description, details, and similes with guidance</li> <li>Uses dialogue with guidance</li> <li>Uses a range of strategies for planning writing with guidance</li> <li>Adapts writing for purpose and audience with guidance</li> <li>Revises for specific writing traits (e.g., ideas, organisation, word choice, sentence fluency, voice, and conventions) with guidance</li> <li>Incorporates suggestions from others about own writing with guidance</li> <li>Edits for punctuation, spelling, and grammar with greater precision and spell checkers) to edit with guidance</li> <li>Develops criteria for effective writing in different genres with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>Writes persuasively about ideas, feelings, and opinions</li> <li>Creates plots with problems and solutions and describe detailed settings</li> <li>Begins to write organised and fluent nonfiction, including simple biographies</li> <li>Writes cohesive paragraphs including reasons and examples with guidance</li> <li>Uses transitional sentences to connect paragraphs</li> <li>Varies sentence structure, leads, and endings details, and similes</li> <li>Begins to use descriptive language, from readers</li> <li>Uses voice to evoke emotional response from readers</li> <li>Begins to integrate information on a topic from a variety of sources</li> <li>Begins to revise for specific writing traits (e.g., ideas, organisation, word choice, sentence fluency, voice, and conventions)</li> <li>Uses tools (e.g., dictionaries, word lists, spell checkers) to edit independently</li> <li>Selects and publishes writing in polished format independently</li> <li>Begins to use complex punctuation (e.g., commas, colons, semicolons, quotation marks) appropriately</li> <li>Begins to set goals and identify strategies to improve writing in different genres.</li> </ul>	<ul style="list-style-type: none"> <li>Writes in a variety of genres and forms for different audiences and purposes independently</li> <li>Creates plots with a climax</li> <li>Creates detailed, believable settings and characters in stories</li> <li>Writes organised, fluent, and detailed nonfiction independently, including biographies with correct format</li> <li>Writes cohesive paragraphs including supportive reasons and examples</li> <li>Uses descriptive language, details, similes, and imagery to enhance ideas independently</li> <li>Begins to use dialogue to enhance character development</li> <li>Incorporates personal voice in writing with increasing frequency</li> <li>Integrates information on a topic from a variety of sources independently</li> <li>Constructs charts, graphs, and tables to convey information when appropriate</li> <li>Uses prewriting strategies effectively to organise and strengthen writing</li> <li>Revises for specific writing traits (e.g., ideas, organisation, word choice, sentence fluency, voice, and conventions) independently</li> <li>Includes deletion in revision strategies</li> <li>Incorporates suggestions from others on own writing independently</li> <li>Uses complex punctuation (e.g., commas, colons, semicolons, quotation marks) with increasing accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>Writes organised, fluent, accurate, and in-depth nonfiction, including references with correct bibliographic format</li> <li>Writes cohesive, fluent, and effective poetry and fiction</li> <li>Uses a clear sequence of paragraphs with effective transitions</li> <li>Begins to incorporate literary devices (e.g., imagery, metaphors, personification and foreshadowing)</li> <li>Weaves dialogue effectively into stories.</li> <li>Develops plots, characters, setting, and mood (literary elements) effectively</li> <li>Begins to develop personal voice and style of writing</li> <li>Revises through multiple drafts independently</li> <li>Seeks feedback from others and incorporates suggestions in order to strengthen own writing</li> <li>Publishes writing for different audiences and purposes in polished format independently</li> <li>Internalises writing process</li> <li>Uses correct grammar (e.g., subject/verb agreement and verb tense) consistently</li> <li>Writes with confidence and competence on a range of topics independently</li> <li>Perseveres through complex or challenging writing projects independently</li> <li>Sets writing goals independently by analysing and evaluating own writing.</li> </ul>

## Handwriting

Handwriting Without Tears and Write From The Start are programmes that are used in Pre-Kindergarten and Kindergarten.

The D'Nealian programme is taught in 1<sup>st</sup> Grade and reinforced in 2<sup>nd</sup>-4<sup>th</sup> Grades. Cursive writing is introduced in the middle of 2<sup>nd</sup> Grade, with reinforcement and mastery occurring in 3<sup>rd</sup> Grade. In 4<sup>th</sup> Grade, daily application of cursive is required.

Our goals are writing fluency and legibility, and therefore, if a student joins our school at any point and has already been taught another form of cursive writing (joined up writing), then he can continue to use the first form he learned.

## Keyboarding

Several keyboarding software programmes are utilised in our Lower School.

1<sup>st</sup> and 2<sup>nd</sup> Grade students practice both in the lab and in their classrooms, using the Type to Learn Jr and Easi Keysi programmes.

3<sup>rd</sup> and 4<sup>th</sup> Grade students practice both in the lab and in their classrooms, using the Type to Learn programme. Students are encouraged to use their keyboarding skills in their regular class work.

While keyboarding skills are an essential skill in the 21<sup>st</sup> Century, familiarity with the keyboard and repeated practice are the aims of this stage of the child's education.

## Mathematics (1 of 18)

Skill mastery and conceptual understanding are at the core of our mathematics programme. We emphasise problem solving skills, higher level thinking, and mental math processes. Children engage in hands-on activities to build understanding, thus increasing their confidence with mathematics in real life situations. When students construct knowledge that has been derived from personal experience, they are much more likely to retain and use what they have learned.

Our Lower School has adopted the high quality and well researched standards developed by National Council for Teachers of Mathematics (NCTM). A variety of resources support our programme, with heavier emphasis in Pre-Kindergarten and Kindergarten on the Math Their Way Program. 1<sup>st</sup>-4<sup>th</sup> Grades mainly utilise the Houghton Mifflin Math scheme.

Mathematics Their Way, developed by The Center for Innovation in Education, is used in Pre-Kindergarten and Kindergarten. This programme focuses on children developing understanding and insight into the patterns of mathematics. It establishes an environment where students deal flexibly with mathematical ideas and concepts through the use of manipulatives.

Houghton Mifflin Math is the main resource in 1<sup>st</sup> through 4<sup>th</sup> Grades because it contains emphasis on basic skills and the concepts that underlie them. The Houghton Mifflin Math series is based on the premise that the five strands of mathematics proficiency, as defined by the National Research Council (conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and productive disposition), are all interwoven.

Mathematics may be best viewed through a scope and sequence. The following pages show our Lower School scope and sequence charts. The dots indicate where a skill is introduced.

Mathematics Scope and Sequence – Pre-Kindergarten and Kindergarten		
	• Teach and Apply	^ Practice and Apply
	Pre-Kindergarten	Kindergarten
<b>Numeral Recognition</b>		
1-10	•	^
10-100		•
<b>Counting</b>		
Counting on 1-10	•	^
Counting on 1-100		•
Skip counting by 10s		•
Comparing/ordering 1-20		•
<b>Number Operations</b>		
Addition to 10		•
Subtraction to 10		•

**Mathematics** (2 of 18)

Mathematics Scope and Sequence – Pre-Kindergarten and Kindergarten		
	• Teach and Apply	^ Practice and Apply
	Pre-Kindergarten	Kindergarten
<b>Fractions</b>		
Recognise and read: $1/2$ , $1/4$		•
Parts of a whole: $1/2$ , $1/4$		•
<b>Measurement</b>		
Language of measurement: long/short, heavy/light, full/empty/half full, hot/cold	•	^
Linear, volume and weight		•
Time: days/weeks	•	^
Time: months/years		•
Time: hour/half hour		•
<b>Organising Information</b>		
Sorting	•	^
Classifying	•	•
Real graphs	•	•
Representative graphs		•
Charts		•
<b>Money</b>		
Coin recognition: British coins		•
Addition to 10 pence		•
<b>Pattern</b>		
Patterns around us	•	•
Patterns with manipulatives	•	•
People patterns		•
A B Patterns		•
Symmetry		•
<b>Geometry</b>		
Positional language	•	•
3D shapes: cube, cone, sphere	•	^

**Mathematics** (3 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>NUMBER AND OPERATIONS</b> (1 of 6)				
<b>Addition</b>				
Adding decimals			•	•
Adding fractions			•	•
Adding integers and rational numbers				•
Adding mixed numbers				•
Adding money	•	•	•	^
Adding multi-digit numbers	•	•	^	^
Adding whole numbers	•	^	^	^
Basic facts	•	^		
Estimating sums	•	•	^	^
Expressions				•
Inverse operations				•
Mental maths	•	•	•	•
Missing addends	•	•	^	^
Number sentences	•	•	^	^
Problem-solving applications	•	•	^	^
Properties of addition	•	•	^	^
Regrouping to add		•	•	^
Strategies for adding	•	•	^	^
Three or more addends	•	^	^	^
<b>Comparing and Ordering Numbers</b>				
Decimals			•	•
Decimals and fractions			•	•
Fractions		•	•	•
Integers				•
Money amounts	•	•	•	^
Using <, > and = symbols	•	•	•	^
Whole numbers	•	•	^	^

**Mathematics** (4 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>NUMBER AND OPERATIONS</b> (2 of 6) <b>Counting, Reading, Writing Numbers</b>				
Decimals			•	•
Fractions	•	•	•	^
Mixed numbers			•	•
Money	•	^	^	^
Ordinal numbers	•	•	^	^
Roman and other numerals			•	•
Square numbers			•	•
Whole numbers	•	•	•	•
<b>Decimals</b>				
Adding decimals			•	•
Comparing decimals			•	•
Decimal notation			•	^
Decimals and fractions			•	•
Decimals and mixed numbers			•	•
Estimating decimals				•
Modelling decimals			•	^
Ordering decimals			•	•
Place value of decimals			•	•
Reading decimals			•	•
Rounding decimals				•
Subtracting decimals			•	•
Writing decimals			•	^

**Mathematics** (5 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>NUMBER AND OPERATIONS</b> (3 of 6)				
<b>Division</b>				
Basic facts			•	^
Checking division with multiplication			•	^
Dividing money			•	•
Dividing whole numbers			•	•
Division as equal groups		•	^	^
Estimating the quotient			•	•
Expressions				•
Fact families			•	^
Missing factors			•	^
Number sentences			•	^
Problem solving applications			•	^
Relating multiplication and division			•	^
Relating subtraction and division			•	^
Remainders			•	•
Strategies for dividing			•	^
<b>Estimating</b>				
Benchmarks	•	•	•	^
Estimated or exact answer?			•	•
Estimating decimals			•	•
Estimating differences		•	•	^
Estimating fractions				•
Estimating measures	•	•	^	^
Estimating money		•	•	^
Estimating products			•	•
Estimating quotients			•	•
Estimating sums	•	•	^	^
For reasonableness of answer		•	•	^
Quantities	^			
Using a referent	•	^	^	^
Using strategies	•	•	•	•

**Mathematics** (6 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>NUMBER AND OPERATIONS</b> (4 of 6)				
<b>Fractions</b>				
Adding fractions			•	•
Comparing fractions		•	•	•
Decimals and fractions			•	•
Equivalent fractions			•	•
Improper fractions			•	•
Meaning of fractions	•	•	•	•
Measurement of fractions			•	^
Mixed numbers			•	^
Modelling fractions	•	•	^	^
Ordering fractions			•	^
Simplifying fractions				•
Subtracting fractions			•	•
<b>Integers and Rational Numbers</b>				
Adding and subtracting integers				•
Graphing on the number line				•
Meaning				•
Negative numbers on a thermometer			•	•
Opposites				•
<b>Mental Mathematics</b>				
Addition	•	•	•	•
Division			•	^
Multiples and powers of 10	•	•	•	^
Multiplication			•	^
Patterns	•	^	^	^
Problem-solving applications		•	^	^
Subtraction	•	•	^	^
Use properties	•	•	•	•
<b>Mixed Numbers</b>				
Adding mixed numbers				•
Decimals and mixed numbers			•	•
Meaning of mixed numbers			•	^
Subtracting mixed numbers				•
Using a number line with mixed numbers			•	^
Writing mixed numbers			•	^

**Mathematics** (7 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>NUMBER AND OPERATIONS</b> (5 of 6)				
<b>Multiplication</b>				
Arrays		•	^	
Basic facts			•	^
Concrete/pictorial representation		•	^	
Drawing a picture to multiply		•	^	^
Estimating products			•	•
Expressions				•
Horizontal and vertical forms			•	^
Mental mathematics			•	^
Missing factors				•
Multiplication as equal groups		•	^	
Multiplying money			•	•
Multiplying three factors			•	^
Multiplying whole numbers		•	^	^
Number sentences		•	^	^
Problem-solving applications		•	^	^
Properties of multiplication			•	^
Related facts			•	^
Related to other operations		•	•	^
Skip-counting to multiply		•	•	^
Square numbers			•	^
Strategies			•	^
<b>Number Theory</b>				
Even and odd numbers	•	•	^	^
Factor trees				•
Factors			•	^
Figurate numbers				•
Multiples			•	•
Prime and composite numbers				•

**Mathematics** (8 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>NUMBER AND OPERATIONS</b> (6 of 6)				
<b>Place Value</b>				
Decimals			•	•
Expanded form		•	^	^
Millions and billions				•
Money			•	•
Standard form	•	•	^	^
Using a place-value chart	•	•	•	^
Whole numbers	•	•	^	^
<b>Ratio, Proportion and Percent</b>				
Meaning of percents			•	•
Percents related to fractions and/or decimals			•	•
Rates			•	•
<b>Subtraction</b>				
Basic facts	•	•	^	
Checking subtraction	•	•	•	^
Estimating differences		•	•	^
Mental mathematics	•	•	^	^
Number sentences	•	•	^	^
Problem-solving applications	•	^	^	^
Properties of subtraction		•	^	^
Regrouping to subtract		•	^	^
Strategies for subtracting	•	•	^	^
Subtracting decimals			•	•
Subtracting fractions			•	•
Subtracting integers				•
Subtracting mixed numbers				•
Subtracting money		•	•	^
Subtracting whole numbers	•	^	^	^
Subtracting with zeros		•	•	•

**Mathematics** (9 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>ALGEBRA</b> (1 of 2)				
<b>Readiness and Application</b>				
Addition and subtraction number sentences	•	•	^	^
Analyse change	•	•	^	^
Fact families	•	•	•	^
Inverse operations	•	•	•	^
Meaning of equality			•	•
Missing addends	•	•	^	^
Missing digits		•	^	^
Missing factors			•	^
Missing measurements and units		•	•	•
Missing operations	•	•	•	^
Multiplication and division sentences			•	^
Proportional reasoning		•	•	^
Symbols showing relations	•	•	^	^
Variables		•	•	^
Venn diagrams	•	•	•	•
Writing and solving number sentences or equations	•	•	•	•
<b>Coordinate Graphs</b>				
Graphing ordered pairs		•	•	^
Ordered pairs		•	•	^
<b>Equations and Inequalities</b>				
Modelling equations	•	•	•	^
Formulas				•
Writing an equation or number sentence			•	•
<b>Expressions</b>				
Evaluate by substitution				•
Evaluate by using order of operations				•
Exploring expressions	•	•	•	^
Inverse relationship of addition and subtraction	•	•	^	^
Inverse relationship of multiplication and division				•
Order of operations			•	^
Writing expressions				•

**Mathematics** (10 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>ALGEBRA</b> (2 of 2)				
<b>Patterns and Function</b>				
Continuing pattern	•	•	•	^
Describing pattern	•	•	•	^
Input/output tables	•	•	^	^
Measurement patterns		•	•	^
Numerical patterns	•	•	^	^
Special patterns and sequences	•	•	^	^
Tessellations			•	•
Using patterns to solve problems	•	•	^	^
Visual patterns	•	•	^	^
<b>Properties</b>				
Associative properties	•	•	•	^
Commutative properties	•	•	^	^
Distributive property				•
Identity properties			•	^
Zero properties		•	•	^

**Mathematics** (11 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>GEOMETRY</b> (1 of 3) <b>Basic Figures</b>				
Attributes of plane figures	•	•	•	^
Basic figures: squares, rectangles, triangles and circles	•	•	^	^
Classifying and sorting figures and shapes	•	•	•	^
Geometric patterns	•	•	^	^
Pattern blocks: triangles, squares, rhombus, trapezoid, hexagon	•	•	•	^
Real-life objects	•	^	^	
Sides, corners, square corners	•	•	^	

**Mathematics** (12 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>GEOMETRY</b> (2 of 3) <b>Plane Figures and Spatial Sense</b>				
Angles		•	•	^
Circles	•	•	•	^
Comparing angles			•	•
Complex figures	•	•	^	^
Classifying polygons			•	•
Congruent figures	•	•	•	^
Intersecting lines			•	•
Line of symmetry	•	•	^	^
Line segments			•	^
Lines			•	^
Making and drawing polygons		•	^	^
Making and drawing quadrilaterals		•	^	^
Measuring angle using a protractor				•
Parallel lines			•	^
Perpendicular lines			•	^
Polygons			•	^
Points			•	^
Quadrilaterals			•	^
Radius, diameter and chord				•
Rays			•	^
Relating solid and plane figures	•	•	^	^
Right angles			•	^
Sides, angles and diagonals of polygons			•	•
Similar figures			•	^
Symmetry	•	•	^	^
Subdividing and combining			•	^
Tangrams		•	•	^
Vertex		•	^	^
Visual thinking	•	•	^	^

**Mathematics** (13 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>GEOMETRY</b> (3 of 3) <b>Solid Figures (3-dimensional objects)</b>				
Complex figures			•	•
Cones	•	•	^	^
Cubes	•	•	^	^
Cylinders	•	•	^	^
Faces, edges, vertexes	•	•	^	^
Identifying, classifying and describing solid figures	•	•	^	^
Nets			•	•
Prisms	•	•	^	^
Pyramids	•	•	^	^
Spheres	•	•	^	^
<b>Transformations</b>				
Flips (Reflections)	•	•	•	•
Slides (Translations)	•	•	•	•
Turns (Rotation)	•	•	•	•

**Mathematics** (14 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>MEASUREMENT</b> (1 of 3)				
<b>Area and Perimeter</b>				
Complex Figures				•
Estimating area, using square units		•	^	^
Finding area, using a formula				•
Finding area, using square units		•	^	^
Finding perimeter		•	•	^
Finding perimeter, using a formula				•
Meaning of area		•	^	^
Meaning of perimeter		•	^	^
Problem-solving applications		•	•	^
Relating area and perimeter			•	•
Surface area, using a formula				•
<b>Capacity</b>				
Conversion tables			•	^
Customary system			•	^
Equivalent units	•	•	•	^
Estimating capacity	•	•	^	^
Measuring capacity	•	•	^	^
Metric system	•	•	•	^
Problem-solving applications	•	•	^	^
<b>Length</b>				
Centimetre	•	•	^	^
Choosing appropriate unit	•	•	•	^
Conversion table			•	^
Customary measurement	•	•	^	^
Equivalent unit		•	•	^
Estimating length	•	•	^	^
Fractions and measurement		•	^	^
Foot, yard		•	^	^
Inch		•	^	^
Indirect measurement				•
Kilometre			•	^
Measuring instruments	•	•	^	^
Measuring length	•	•	^	^
Metre	•	•	•	^
Metric measurement	•	•	•	^
Mile			•	^
Problem-solving applications	•	•	•	^

**Mathematics** (15 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>MEASUREMENT</b> (2 of 3)				
<b>Money</b>				
Adding and subtracting money	•	•	•	^
Comparing amounts		•	•	^
Consumer applications	•	•	^	^
Counting coins and bills	•	^	^	^
Counting on with money	•	^	^	^
Decimals, fractions and money			•	^
Equivalent amounts	•	•	^	^
Estimating money		•	•	^
Identifying coins and bills	•	^	^	^
Making change		•	^	^
Multiplying and dividing money			•	•
Place value				•
Problem-solving applications	•	•	•	^
Rounding money			•	^
Symbolic notation	•	•	^	^
<b>Temperature</b>				
Celsius scale		•	^	^
Estimating temperature			•	^
Fahrenheit scale			•	^
Interpreting a thermometer		•	^	^
Negative numbers				•
Writing temperature		•	•	^

**Mathematics** (16 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>MEASUREMENT (3 of 3)</b>				
<b>Time</b>				
A.M. and P.M.		•	•	^
Analog clock	•	•	^	
Calendar concepts	•	^	^	^
Digital clock	•	•	^	
Elapsed time	•	•	^	^
Estimating time	•	^	^	
Ordinal numbers	•	^	^	
Problem-solving applications	•	•	^	^
Schedules	•	•	^	^
Sequencing events	•	^	^	
Telling time	•	•	^	^
Time line			•	•
Time zone				•
<b>Volume</b>				
Estimating volume		•	•	^
Finding volume, counting cubic units			•	^
Finding volume, using a formula				•
Meaning of volume			•	•
Problem-solving applications			•	•
<b>Weight and Mass</b>				
Conversion table			•	•
Equivalent units			•	•
Estimating weight and mass	•	•	•	^
Finding weight and mass		•	•	^
Gram and kilogram	•	•	•	^
Ounce			•	•
Pound			^	^
Problem-solving applications	•	•	•	^
Ton				•

**Mathematics** (17 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>DATA ANALYSIS AND PROBABILITY</b> (1 of 2)				
<b>Addition</b>				
Analysing and interpreting data	•	•	•	^
Average			•	^
Bar graphs	•	•	^	^
Choosing an appropriate display			•	•
Circle graph		•	•	•
Collecting, organising and displaying data	•	•	•	^
Double bar graph				•
Frequency tables/tally charts	•	•	•	•
Histogram				•
Line graphs	•			•
Line plots			•	^
Making tables and charts	•	•	^	^
Mean			•	^
Measures of central tendency			•	•
Median			•	^
Mode			•	^
Organised lists		•	•	•
Outliers				•
Pictographs	•	•	^	^
Problem-solving applications	•	•	^	^
Range		•	•	^
Reading tables and charts	•	•	^	^
Stem-and-leaf plots				•
Surveys	•	•	•	^

**Mathematics** (18 of 18)

Mathematics Scope and Sequence – 1 <sup>st</sup> through 4 <sup>th</sup> Grade				
	• Teach and Apply		^ Practice and Apply	
	1 <sup>st</sup> Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	4 <sup>th</sup> Grade
<b>DATA ANALYSIS AND PROBABILITY (2 of 2)</b>				
<b>Probability</b>				
Calculating probability of simple event			•	•
Compound events				•
Developing and analysing predictions and inferences	•	•	•	^
Fair or unfair		•	^	
Likelihood of an event	•	•	^	^
Possible outcomes			•	•
Probability experiments	•	•	•	^
Problem-solving applications	•	•	^	^
Recording outcomes	•	•	•	^
Representing likelihood as a number from 0 to 1				•
Using a tree diagram or grid				•
Using coins, cubes or spinners	•	•	^	^

## Science (1 of 6)

Science encourages the development of children’s natural curiosity and inquisitiveness. Our programme makes use of children’s desires to understand something of nature and causes of phenomena which they experience or encounter in their ever-expanding environment. Through experiments and observations, Science is taught with a hands-on approach as much as possible. Our goal is to encourage an understanding of what Science is. There are four main areas: Life Science, Earth Science, Physical Science and Health Science. Topics are often explored in conjunction with other curricular areas, such as language development, mathematics and art activities.

In addition, as part of our health programme at every level, we have incorporated age appropriate topics such as internet safety, peer relationships, conflict resolution, “stranger danger” and “respecting your body”.

Science Overview – Pre-Kindergarten			
Life Science	Earth Science	Physical Science	Health Science
<b>Growing Things</b>	<b>Seasonal Changes</b>	<b>Water</b>	<b>Healthy Eating</b>
Know that plants need sunlight, water, air and soil to grow	Describe the four seasons	Observe the density of objects through floating and sinking	Know what a balanced diet is and why it is important
Understand that plants can be different shapes and sizes	Understand that people, wildlife and plants are affected by the changing seasons		Learn how to prepare food
Know that some plants provide food	Identify weather patterns		Learn how and why it is important to take care of teeth

**Science** (2 of 6)

Science Overview – Kindergarten			
Life Science	Earth Science	Physical Science	Health Science
<b>Waterworld Life</b>	<b>Waterworld</b>	<b>Toys: energy &amp; forces</b>	<b>Personal Hygiene</b>
Understand how sea creatures can survive in their environment	Understand that water can be in different states (solid, liquid and gas)	Understand that objects can be described in terms of their physical properties	Understand that cleanliness is important for good health
Understand that changes in habitat affect survival	Describe the water cycle	Understand that forces cause changes in speed or direction of motion	Understand that germs can spread from person to person
	Understand surface tension	Understand that force affects objects	
		Compare and describe how balls fall according to weight and size	

## Science (3 of 6)

Science Overview – 1 <sup>st</sup> Grade			
Life Science	Earth Science	Physical Science	Health Science
<b>Life Cycle of the Common Frog</b>	<b>How the Weather Affects Us</b>	<b>Light and Dark</b>	<b>Living with our Senses</b>
Know what a frog is and how it develops	Identify the different types of weather and where they occur in the world	Understand that light comes from the sun	Identify the five main sense organs
Understand that metamorphosis means change	Realise that weather is different in different places	Understand how shadows are formed	Describe the functions of the sense organs
Realise that frogs must have certain things in order to grow and survive	Understand that weather information is used to make decisions	Understand that white light is made up of different colours of the spectrum	Understand how senses play an integral role in survival
			Realise that our senses enhance life
			Understand that senses can be impaired

**Science** (4 of 6)

Science Overview – 2 <sup>nd</sup> Grade			
Life Science	Earth Science	Physical Science	Health Science
<b>British Mammals</b>	<b>Geology</b>	<b>Solar System</b>	<b>Nutrition and Kitchen Chemistry</b>
Identify the life cycles of British mammals	Identify different rocks, minerals and fossils	Know the name of our planet and its position in our solar system	Understand that your body uses different types of food
Provide examples of different habitats	Describe the composition of rocks	Investigate stars: number, size, location and appearance	Identify the food groups on the food pyramid
Identify basic needs of British mammals	Understand how fossils are formed	Explain when the sun, moon and stars can be seen and how they appear to move across the sky	Understand that when ingredients are combined for a recipe a new mixture is created
Describe the food chain	Recognise basic features of the earth's surface	Explain the night and day cycle	Plan and prepare nutritious meals and snacks
	Understand that fossils teach us about the earth thousands of years ago		

**Science** (5 of 6)

Science Overview – 3 <sup>rd</sup> Grade			
Life Science	Earth Science	Physical Science	Health Science
<b>Trees, Leaves and Plants</b>	<b>States of Matter</b>	<b>Simple Machines</b>	<b>The Skeleton as a Simple Machine</b>
Identify the parts of trees, plants and flowers	Understand what matter is	Describe the six simple machines and how they work	Understand what the skeleton is and its role
Understand photosynthesis	Identify the three states of matter (solid, liquid and gas)	Understand that simple machines make work easier	Identify parts of a skeleton
Understand pollination	Understand how matter can change from one state to another	Realise that simple machines are the basis for modern day machines	Describe how a skeleton moves
Understand fertilisation	Understand how the states of matter interact in the environment	Identify simple machines around us	Understand how parts of a skeleton are simple machines
Identify ways seeds are dispersed			
Understand why and how people use woodlands			

**Science** (6 of 6)

Science Overview – 4 <sup>th</sup> Grade			
Life Science	Earth Science	Physical Science	Health Science
Endangered Animals	Forces of Nature	Forensic Science	Body Systems - circulatory and respiratory
Define the term endangered	Recognise the structure of the Earth	Increase skills of observation and deduction	Know the function of the heart and lungs
Identify endangered animals	Understand the influences weather has on the Earth	Record and interpret data	Realise that a cell is so small it can't be seen by the human eye
Explain why animals become endangered	Define volcano, earthquake and hurricane (cyclone and typhoon)	Understand the significance of controlled experiments	Understand what a cell is and its role in the heart and lungs
Know that individual organisms vary and that those best adapted to an environment are the ones most likely to survive and reproduce	Identify the causes of volcanoes, earthquakes and hurricanes		Understand the role of the heart and lungs in the circulatory and respiratory systems
Understand that people have a responsibility to the environment and the animals that live in it	Be aware of the effects of natural disasters on the Earth's surface and people's lives		

**Social Studies (1 of 4)**

Social Studies classes offer an integrated approach to the study of History, Geography and other Social Sciences. Our aim is to increase understanding of the following concepts: chronology, continuity, and change; causation and consequence; similarity and difference. This sometimes results in a spiralling effect where a specific topic may be addressed in several grades but on different levels of understanding.

Social Studies Overview – Pre-Kindergarten			
First Quarter	Second Quarter	Third Quarter	Fourth Quarter
<b>Families</b>	<b>People Who Help Us</b>	<b>Communications</b>	<b>Travel and Vacations</b>
Identify family members	Recognise various people in and around school that help	Identify ways we communicate with others	Identify various modes of travel
Understand there are many ways people can become families	Identify different people in our school that help them everyday	Recognise the telephone as a help in an emergency	Explain vacations and why people take them
Represent themselves and their families	Develop an understanding of why there are people who help us		

Social Studies Overview – Kindergarten			
First Quarter	Second Quarter	Third Quarter	Fourth Quarter
<b>Getting to Know You</b>	<b>From Farm to Fork</b>	<b>Toys</b>	<b>Water World</b>
Recognise countries of the students in the class on a map and globe	Identify where food comes from	Explain what toys are and why we have them	Identify seas and oceans on maps
Identify flags of students in the class	Understand how food gets to the table	Understand that toys have changed over time	Know where the different undersea habitats are in the world
Develop an understanding of cultural similarities and differences, develop respect for other cultures	Understand that food is a precious commodity	Understand that culture and circumstances influence toys	Understand that in some parts of the world water provision is a problem

**Social Studies (2 of 4)**

Social Studies Overview – 1 <sup>st</sup> Grade			
First Quarter	Second Quarter	Third Quarter	Fourth Quarter
<b>From Here to There</b>	<b>Giving Thanks</b>	<b>Ceremonial Symbols</b>	<b>Famous People</b>
Understand the concept of location	Understand that stories of past events, people and places help us understand the present	Understand ways in which people from different cultures use symbols as part of celebrations	Differentiate between past and present
Understand that maps give information	Understand that life is dependent on food and water	Know that celebrations lead us towards a greater understanding of other cultures	Understand that stories can change over time
Recognise that individual people are part of a group			Understand that there are many ways in which you can be famous

Social Studies Overview – 2 <sup>nd</sup> Grade			
First Quarter	Second Quarter	Third Quarter	Fourth Quarter
<b>Timelines</b>	<b>Family Traditions</b>	<b>Childhood Then and Now</b>	<b>London Sites</b>
Read and recognise various types of timelines and know what they are used for	Develop respect for other cultures	Recognise the difference between their life and that of a Victorian child	Know where London is on a map
Make a personal timeline	Identify a family tradition of their own		Know various London landmarks and why they are famous
Understand that a timeline is a tool of measurement	Understand that different cultures have different traditions		Explain why children would want to visit them

**Social Studies** (3 of 4)

Social Studies Overview – 3 <sup>rd</sup> Grade			
First Quarter	Second Quarter	Third Quarter	Fourth Quarter
<b>Into the Unknown</b>	<b>Our World</b>	<b>A Building in Time</b>	<b>A Tapestry of Medieval Life</b>
Identify pioneers by appearance	Know cardinal directions Identify parts of a map: compass, rose, key, legend, scale, labels, symbols	Identify three types of castles	Understand the feudal system
Explain when, where and how pioneers lived	Apply map skills	Understand why, when and how castles were built	Explain medieval people's role in society
Students compare their lives to a pioneer	Identify types of maps	Identify functions of different parts of castles	Identify tools and weapons used by the people of medieval times
	Identify continents and oceans	Research castles in Britain	Explore the rules of chivalry
	Identify hemispheres	Understand that the Bayeaux Tapestry is a timeline of English history	
	Recognise various land forms	Describe the evolution of English castles	

**Social Studies** (4 of 4)

<b>Social Studies Overview – 4<sup>th</sup> Grade</b>			
<b>First Quarter</b>	<b>Second Quarter</b>	<b>Third Quarter</b>	<b>Fourth Quarter</b>
<b>Pre-History</b>	<b>Roman Britain</b>	<b>Tudors</b>	<b>Home Countries</b>
Understand the leadership and organisation of the era	Understand the leadership and organisation of the era	Understand the leadership and organisation of the era	Identify landscapes, environments and location of child's own country
Identify changes over time	Recognise when and why the Romans arrived	Recognise when and why the Tudors arrived	Understand the leadership and organisation of the country
Recognise societal and cultural difference	Explain how the Romans lived	Explain how the Tudors lived	Recognise differences of each others' countries
Explain technical advances	Know important events and changes	Know important events and changes	Develop a respect for classmates' home countries
Confidently share information	Identify evidence that is left of the Romans	Identify evidence that is left of the Tudors	

## Art

As students move from Pre-Kindergarten through the early grades, they develop skills of observation and learn to examine the objects and events of their lives. At the same time, they grow in their ability to describe, interpret, evaluate, and respond to work in the visual arts. Through examination of their own work and that of other people, times, and places, students learn to unravel the essence of artwork and to appraise its purpose and value. Through these efforts, students begin to understand the meaning and impact of the visual world in which we live.

In Pre-Kindergarten, the process, rather than the product, is the focus of the creative arts programme. During class the children are encouraged to explore and experiment with materials. The foundation for good work habits and safety are put into place.

Children in Kindergarten develop skills through drawing activities, cutting, folding, pasting, and painting. As the year progresses they apply this knowledge to larger projects that frequently complement classroom themes such as toys and marine animals.

1<sup>st</sup> Grade students are enthusiastic artists. Practice to coordinate hand-eye movement and develop fine motor skills is encouraged through drawing activities, printing techniques and painting. 1<sup>st</sup> Graders are already coming to an awareness of the basic elements of design.

2<sup>nd</sup> Grade students express themselves with diverse art materials. Students become ready for challenging activities such as basic colour theory, portraiture, still life studies and animal sculpture. They keep a notebook to record studies and ideas.

Students in 3<sup>rd</sup> Grade have an opportunity to apply their developing maturity, skill and confidence. The basic elements of line, shape, form, texture and colour are reinforced. Students keep a notebook to record their studies and ideas. In the first and third quarter, art projects tie in and complement the classroom themes of 'plants, leaves and trees' and 'a building in time.'

A widening knowledge of materials enriches 4<sup>th</sup> Grade students' artistic imaginations as they begin to make more considered choices about which materials best fit a project. Art instruction, critiques, and self-assessment ensure that the students have a vocabulary equal to their experiences. Notebooks play an important role in recording students' ideas and progress.

## Music

The music curriculum is based upon a sequential core of knowledge centred around literacy, creating and performing, thinking and responding, and history and culture. Opportunities for singing, playing instruments, reading notation, listening to all genres of music, critiquing, dramatic role play and performing are consistently offered. Given the diversity of the students at ACS, multicultural experiences in music are ongoing. Children sing and listen to music from all parts of the world in class on a regular basis. Wherever possible, music is connected to, and integrated with, other subject areas being studied.

Pre-Kindergarten pupils learn simple action songs and rhymes, move to the beat, dance, explore the world of instruments and listen to age appropriate musical selections. The concepts of loud/soft, fast/slow, same/different, and high/low are explored through experiences and games.

The goal for Kindergarten children is the establishment of a strong foundation for future musical growth. This is accomplished through an experiential process which stresses active involvement. Some of the activities that foster this include: finding and using the singing voice, developing a feeling for the steady beat, learning the appropriate use of instruments, movement skills, and beginning music literacy through pre-reading activities. A repertoire of songs and listening is also a strong part of the Kindergarten year.

1<sup>st</sup> Grade students are able to use their singing voices with growing confidence. 1<sup>st</sup> Graders sing simple songs, play and recognise a variety of classroom percussion and melodic instruments, move to the beat and to established pieces of music from all genres. They begin to use notation, start to discriminate in regards to pitch, tempo, duration and volume, and learn about the larger world of music as it occupies its cultural place in life.

Singing, playing instruments, moving to the beat, and listening to music remain the focal points of the 2<sup>nd</sup> Grade music experience. The year long major unit of study is entitled, "Music Around the World." We learn and practice the basics of music by using songs, games, recordings and related activities that another 2<sup>nd</sup> Grader is also learning, somewhere else in the world.

3<sup>rd</sup> Grade musicians are building a vocabulary which allows them to begin to make judgments about the art form. They can recognise and use music not only as a means of self-expression, but also as a discipline or form of leisure. Added to the ongoing learning about the elements of music: melody; harmony; rhythm; tempo; tone colour; and dynamics, the soprano recorder is also introduced. The instrument experience allows students to have first hand knowledge of bringing the elements of music together, with performance as a goal.

Students in 4<sup>th</sup> Grade have enough vocabulary and skills to express ideas and opinions about music. The writing of music is encouraged and taught, as is the introduction to band and orchestra instruments, with hopes that the child will play in the future. All 4<sup>th</sup> Graders participate in a choir. They also have exposure to beginner level music technology in the Harmony House computer lab and in the Lower School computer lab.

## Physical Education

Physical Education classes in the Lower School are designed to develop individual athletic-based and movement-based skills. The programme is taught through progressive instruction; the level and rate at which skills are introduced is dependent on the teacher's view of the abilities and experiences of both the class and the individuals within it. Basic health and fitness concepts, rhythmic body movement, body and equipment awareness, manipulation, movement, control, and co-ordination are focuses at each grade level. Water confidence units are included in Kindergarten through 4<sup>th</sup> Grade. Students are also encouraged to learn safety concepts, work co-operatively, and follow directions.

Pre-Kindergarten and Kindergarten students build on their natural enthusiasm for movement, using it to explore and learn about their world. They start to work and play with other pupils in pairs and small groups. By watching, listening and experimenting, they develop their skills in movement and coordination.

1<sup>st</sup> Graders have a natural enthusiasm for movement. They continue to work in pairs, small groups and whole class activities. As their body awareness, movement and coordination skills mature, they gain more control. This allows greater success across a wide range of equipment and activities.

2<sup>nd</sup> Grade students continue to develop a more sophisticated repertoire of skills and experiences. They continue to enjoy working in pairs, small and large groups. They are exposed to more complex rules when playing games and are constantly encouraged to test themselves in different environments.

During 3<sup>rd</sup> Grade, students enjoy being active and using their creativity and imagination in physical activity. They learn new skills, find out how to use them in different ways, and link them to make actions, phrases and sequences of movement. They enjoy communicating, collaborating and competing with each other. They develop an understanding of how to succeed in different activities and learn how to evaluate and recognise their own success.

4<sup>th</sup> Grade students are creative during physical activity. They continue to want to learn new skills, and experiment with different ways to perform them. Communicating and collaborating are encouraged alongside competing fairly with others. Students continue to succeed in a variety of environments and continue to evaluate and recognise their own and the group's success.

## Modern Language Programme

The Modern Language curriculum is based upon the premise that in today's interconnected world the acquisition of additional languages and an appreciation of our diversity are fundamental. The Modern Language programme aims to empower students with receptive and productive skills necessary for practical communication while promoting awareness and understanding of other cultures. A central tenet of the curriculum is to more fully integrate students by highlighting their skills and strengths as multicultural and multilingual students.

### Languages and Cultures Programme: Pre-K-3<sup>rd</sup> Grade

The Languages and Cultures Programme is a celebration of ACS Hillingdon's international student body. Students' home cultures are explored in class with the active participation of parents. The main objective of the programme is to integrate the many nationalities and cultures represented in each grade level, while creating the motivation for further foreign language study and broadening students' understanding of the greater world. Through projects, kinesthetic and art activities, and visitor presentations, the focus areas of geography, climate, architecture, religion, written and spoken language, and cultural differences are explored. Whenever possible, the five senses serve as the means of exploration for each topic, and music, dance, food, tangibles, and native speakers are integrated wherever possible. The Languages and Cultures Programme is a "live" programme whose set objectives are met by dynamic and constantly evolving curricular content. The focus nations are determined by the demographic of each class, integrating parent and guest volunteers as first hand resources whenever possible.

The language portion of the Pre-Kindergarten and Kindergarten course closely reflects their classroom content, with colours, numbers, days of the week, opposites, animals and body parts being taught in French through songs, games, and activities with tangibles. The children experience the cultural content of the focus nations through their senses: food, music, crafts, images, and stories. The focus nations are largely determined by the demographic of the grade, where we validate and integrate parents and children as much as possible.

In keeping with the cross-curricular objectives and philosophy of our Lower School, 1<sup>st</sup> Grade class activities closely reflect classroom goals for 1<sup>st</sup> Grade skills. Students are emerging readers and writers and are introduced to written French as well as given the opportunity to attempt writing in various alphabets and writing systems in accord with the cultural focus [Japan - Kanji, Russian - Cyrillic, etc.]. Drama, dance, target language songs, games, and the use of artifacts, musical instruments and tangibles serve as the venue of exploration for experiencing the focus cultures. Student demographics in terms of religious, linguistic, and ethnic origin help form the basic criteria for the selection of cultures and languages chosen.

For 2<sup>nd</sup> Graders, stronger writing skills and greater motor control lend themselves to more difficult crafts and more interpretative artwork. Basic geographical concepts of continents and national borders, and relative size are introduced and reinforced. Mathematical concepts from the core curriculum, of basic facts, patterns, categorisation and sorting are present in both language and manual projects. Visitor presentations and activities create an important link between school knowledge and world application and help students form a personal connection with focus cultures. Concepts of human differences and similarities, perceptions and religions, and basic human rights are integrated into the curriculum using activities and the UNICEF Charter of the Rights of Children.

Greater confidence in their reading and writing skills, as well as a more grounded understanding of place and distance lend themselves to the 3<sup>rd</sup> Grade programme's emphasis on narrative writing and geography. The concepts of emigration and immigration, distribution of resources, and the impact of climate form an important link with a more detailed study of geography, now including states, provinces and major topographical features. Communication and comparison through writing, and of writing systems, are linked to universal perspectives and religious perceptions. Guest speakers are invited for question and answer sessions, and students are able to articulate their perceptions and query differences of opinion. Drama and craft fabrication (including sewing, weaving, collage, mosaics, painting and batik) are important components.

### Spanish: 4<sup>th</sup> Grade

The 4<sup>th</sup> Grade Spanish programme begins the language continuum, which spans from 4<sup>th</sup> Grade to graduation, culminating with the IB language options. The programme is specifically designed to provide children with the academic and linguistic skills necessary to succeed in language study, regardless of their future choice of language. It not only encompasses the four language modalities of: reading, writing, listening and understanding, and oral production, but also incorporates cultural differences in and between Spanish speaking countries. Two units have been designed with the specific aim of tying Spanish in to the main curriculum, that of the body, which parallels the study of body systems in Science, and that of animals and habitats, which parallels the study of endangered species.

## Information Technology

The Lower School sees technology as an integral part of student learning. Technology is a tool that fosters collaboration, stimulates problem solving and advances learning as students prepare for the future. Wherever possible technology lessons support the curriculum.

Pre-Kindergarten students learn to log on, open an application and use the keyboard and mouse to navigate around different programs. Kid Pix encourages the students to use buttons and toolbars to play and create original pictures. Simple logic games are introduced, which allow students to practice their input skills whilst working on their logic, mathematics and language skills.

Much of the work in Kindergarten involves learning to log on to their personal accounts, open programs from the dock and save documents into their own home folder. Kid Pix is the primary program used by the students. During the year students create a variety of drawings and prepare a slideshow to share with their parents. Many different logic, mathematics and language games are used to provide students with an opportunity to navigate around different environments.

Kid Pix and Print Shop are widely used in 1<sup>st</sup> Grade throughout the year. One of the Kid Pix projects requires the students to draw five pictures to represent the transition from frogspawn to frog, and then they prepare a slideshow with transitions and sound. Print Shop allows the students to manipulate graphics and text for a variety of different presentations. Keyboard awareness is introduced through a visual program called Type to Learn Jr. Strategic thinking, information and mathematics programs are also used to support the curriculum. The Internet is used to access pre-selected and appropriate websites.

Again, Kid Pix and Print Shop are explored throughout the 2<sup>nd</sup> Grade year. Keyboard awareness is taught using a visual program called Easi Keysi. The Internet is actively used with the emphasis placed on safety and responsible usage. Web design is introduced using WebBlender. Strategic thinking, information and mathematics programs are used to support the curriculum.

Students in 3<sup>rd</sup> Grade explore different presentation programs including, Pages, Word, Print Shop and Comic Life. Inspiration is used to help students plan their work, and keyboard awareness is taught using a visual program called Type to Learn. The Internet is actively taught with regards to safe use, plagiarism and citing resources. In addition, iTunes, a music management program, and iPhoto, a photo management program, are introduced which combine to help students produce QuickTime movies. Web design is also available through WebBlender. Terrapin Logo explores basic programming and helps to reinforce basic mathematical concepts. Strategic thinking, information and mathematics programs are used to support the curriculum.

In 4<sup>th</sup> Grade, wordprocessing, drawing, spreadsheets and presentations programs are explored including Word, Print Shop, Inspiration, Pages, Comic Life and PowerPoint. Keyboard awareness is taught using a visual program called Type to Learn. Web design is explored through iWeb, which allows students to create simple information websites. Terrapin Logo explores basic programming, reinforcing and supporting mathematics. Strategic thinking and other mathematics programs are also available.

## Library

The Library programme supports and enriches the School curriculum, as well as encourages reading for pleasure. Exposure to literature from all corners of the world is a prominent feature. During weekly Library visits children hear stories or nonfiction selections, learn about particular authors, practice using the Library catalogue, and make selections for borrowing. The enjoyment of a variety of genres of literature is encouraged. When it is possible, the Library programme links to the Science and Social Studies units taught in the classroom.

During Library visits, students browse for stories and subjects that appeal directly to them so that their choices may be borrowed and returned on a weekly basis. Helping the children to make good borrowing choices is important. Over time, children make personally appropriate choices in their book borrowing, becoming more discriminating about the books most suitable for their individual reading levels. At the same time, however, the librarian encourages children to broaden their reading interests by introducing a variety of genres.

In addition to the usual Library cataloguing categories (Fiction, NonFiction, Everybody Books, Poetry, Folk tales, Series, Paperbacks) a portion of our collection has been catalogued so that it aligns with the reading continuum used throughout Lower School for monitoring the progress of each child's reading development. Additional titles have been categorised as Picture Fiction in the hope that we can bridge the gap between those 'Early Readers' and what children refer to as 'Chapter Books' (Fiction). The creation of these new areas improves each child's chance of finding a book that he or she might read independently. We also have a growing collection of books in languages other than English, enabling many of our EAL pupils to choose titles in their first languages while reading others in English.

Never wishing to discourage children from enjoying their use of the Library, the librarian guides them toward books on their reading levels but rarely insists on particular book choices for children. If parents feel that more suitable reading materials are needed for home reading, or if they wish to have more to choose from at home, they are more than welcome to borrow books and the librarian is happy to offer guidance.

Curriculum Summary Charts (1 of 3)

PRE-KINDERGARTEN					
Reading	Writing	Mathematics	Science	Social Studies	Specials
Stories, poetry, drama, and singing help pupils develop confidence in, and curiosity about, beginning reading.  Letter/sound correspondence is introduced.	Children are encouraged to experiment with emergent writing and drawing to 'tell' stories.	Mathematic is hands-on to build understanding of mathematical concepts. Key areas of focus: Numeral recognition, counting, number operations, fractions, measurement, organising information, money, pattern, geometry.	Science promotes children's natural curiosity. Units studied include: <ul style="list-style-type: none"> <li>• Growing things,</li> <li>• Seasonal changes,</li> <li>• Buoyancy</li> <li>• Healthy eating.</li> </ul>	Students in Pre-Kindergarten study the following units: <ul style="list-style-type: none"> <li>• Families</li> <li>• People who help us</li> <li>• Communications</li> <li>• Travel and vacations.</li> </ul>	Music Library Technology Art PE Languages and Cultures.

KINDERGARTEN					
Reading	Writing	Mathematics	Science	Social Studies	Specials
Recognition of letter/sound correspondence is emphasised. Auditory discrimination skills are developed through identification of beginning/ending sounds, sound blending, and hearing and using rhyming words.  Basic sight words are introduced.	Variations of familiar stories serve as springboards for collaborative story compositions. Students practice their emergent writing skills.	Mathematic is hands-on to build understanding of mathematical concepts. Key areas of focus: Numeral recognition, counting, number operations, number measurement, organising information, money, pattern, geometry.	Science is taught through experiments and observations. Units studied include: <ul style="list-style-type: none"> <li>• Waterworld life</li> <li>• Waterworld</li> <li>• Toys - energy and forces, Personal hygiene.</li> </ul>	Students in Kindergarten study the following units: <ul style="list-style-type: none"> <li>• Getting to know you</li> <li>• Food, glorious food</li> <li>• Toys</li> <li>• Waterworld.</li> </ul>	Music Library Technology Art PE Languages and Cultures.

Curriculum Summary Charts (2 of 3)

1 <sup>ST</sup> GRADE					
Reading	Writing	Mathematics	Science	Social Studies	Specials
Students develop decoding skills and strategies, including phonic skills. Comprehension skills are stressed as children learn to identify and discuss story characters, setting, problem and resolution.	Writing journals and creative writing help students to develop their own style and creativity. Sentence structure, punctuation and capitalisation follow as the writing process develops.	Mathematics is hands-on to build understanding of mathematical concepts. Key areas of focus: Number and operations, algebra, geometry, measurement, data analysis and probability.	Science is taught through experiments and observations. Units studied include: <ul style="list-style-type: none"> <li>• Life cycle of the common frog</li> <li>• How weather affects us</li> <li>• Light and dark</li> <li>• Living with our senses.</li> </ul>	Students in 1 <sup>st</sup> Grade study the following units: <ul style="list-style-type: none"> <li>• From here to there</li> <li>• Giving thanks</li> <li>• Ceremonial symbols</li> <li>• Famous people.</li> </ul>	Music Library Technology Art PE Languages and Cultures.

2 <sup>ND</sup> GRADE					
Reading	Writing	Mathematics	Science	Social Studies	Specials
Decoding skills and strategies are strengthened. Comprehension skills are reinforced through connections between texts, self and the world. Students read a wide variety of literature to explore characters, setting, problem and resolution.	Students are exposed to a variety of genres and author styles during writer's workshop. Students build and develop more complex skills of writing mechanics (e.g. capitalisation, punctuation, sentence structure, and paragraphing).	Conceptual understanding, the mastery of skills, and problem solving are emphasised. Key areas of focus: Number and operations, algebra, geometry, measurement, data analysis and probability.	Students practice the scientific method through experiments and observations. Units studied include: <ul style="list-style-type: none"> <li>• British mammals</li> <li>• Geology</li> <li>• Solar System</li> <li>• Nutrition.</li> </ul>	Students in 2 <sup>nd</sup> Grade study the following units: <ul style="list-style-type: none"> <li>• Timelines</li> <li>• Family traditions</li> <li>• Childhood then and now</li> <li>• London sites.</li> </ul>	Music Library Technology Art PE Languages and Cultures.

Curriculum Summary Charts (3 of 3)

3 <sup>RD</sup> GRADE					
Reading	Writing	Mathematic	Science	Social Studies	Specials
Students explore a wide range of literature and begin to respond thoughtfully and critically to text. Students continue to develop literal and inferential comprehension skills as well as read a wide range of literature to explore characters, setting, plot, theme, problem and resolution.	Students are exposed to a variety of genres and author styles during writer's workshop. Pupils' editing skills develop and they begin to recognise and correct their own content and mechanical errors.	Conceptual understanding, the mastery of skills, and problem solving are emphasised. Key areas of focus: Number and operations, algebra, geometry, measurement, data analysis and probability.	Students practice the scientific method through experiments and observations. <ul style="list-style-type: none"> <li>• Units studied include:</li> <li>• Trees, leaves and plants</li> <li>• States of matter</li> <li>• Simple machines</li> <li>• The skeleton as a simple machine.</li> </ul>	Students in 3 <sup>rd</sup> Grade study the following units: <ul style="list-style-type: none"> <li>• Into the unknown</li> <li>• Our world</li> <li>• A building in time</li> <li>• A tapestry of Medieval life.</li> </ul>	Music Library Technology Art PE Languages and Cultures.

4 <sup>TH</sup> GRADE					
Reading	Writing	Mathematic	Science	Social Studies	Specials
Acquiring new vocabulary and comprehending at both literal and inferential levels are emphasised. Students read a wide range of literature to explore characters, setting, plot, climax, theme, problem, and resolution.	Students are exposed to a variety of genres and author styles during writer's workshop. Pupils become more skilled at self-correcting and giving their peers useful feedback in the writing process.	Conceptual understanding, the mastery of skills, and problem solving are emphasised. Key areas of focus: Number and operations, algebra, geometry, measurement, data analysis and probability.	Students practice the scientific method through experiments and observations. Units studied include: <ul style="list-style-type: none"> <li>• Endangered animals</li> <li>• Forces of nature</li> <li>• "Forensic Science"</li> <li>• Heart and lungs.</li> </ul>	Students in 4 <sup>th</sup> Grade study the following units: <ul style="list-style-type: none"> <li>• Pre-history</li> <li>• Roman Britain</li> <li>• Tudors</li> <li>• Home countries.</li> </ul>	Music Library Technology Art PE Spanish.