SVKM J. V. Parekh International School
Academic Portion for 1st term of the session 2014-15
Grade- V

English:

Strands	CPP Expectations	Learning Experiences
Phonics, Spelling and Vocabulary	**• Learn word endings with different spellings but the same pronunciation.** **• Confirm correct choices when representing consonants.** **• Continue to learn words, apply patterns and improve accuracy in spelling.** **• Develop knowledge of word roots, prefixes and suffixes, including recognising variations, e.g. *im*, *in*, *ir*, *il*; *ad*, *ap*, *af*, *al* and knowing when to use double consonants.** **• Know how to transform meaning with prefixes and suffixes.** **• Explore definitions and shades of meaning and use new words in context.** **• Explore word origins and derivations and the use of words from other languages.** **• Understand changes over time in words and expressions and their use.** **• Explore proverbs, sayings and figurative expressions.**	Exposure to word lists, word games and quizzes: • **Word endings with different spellings but same pronunciations, e.g. *-tion, -cian, -sion, -ssion; -ance, -ence-*:** nation, mission; reliance, independence, etc. • **Choosing correct choice when representing consonants, e.g. 'ck'/'k'/'ke'/'que'/'ch'; 'ch'/'tch'; 'j'/'dj'/'dje':** quack, quake, lake; retch, touch; etc. • **Prefixes and Suffixes, e.g. *im, in, ir, il; ad, ap, af, al:*** their impact on the meaning of the root word. Using the dictionary in order to find/ verify the meanings of unknown words: • **Contextual meaning of unknown words.** Daily exposure and discussion: • **Proverbs, sayings and expressions.**
Grammar and Punctuation	**• Identify uses of the colon, semi-colon, parenthetic commas, dashes and brackets.** **• Revise different word**	• **Punctuation marks:** Identification and usage of appropriate punctuation marks in written and verbal work.

	classes. **• Investigate the use of conditionals, e.g. to express possibility.** **• Begin to show awareness of the impact of writers' choices of sentence length and structure.** **• Revise language conventions and grammatical features of different types of text.** **• Explore use of active and passive verbs within a sentence.** **• Understand the conventions of standard English usage in different forms of writing.** **• Develop increasing accuracy in using punctuation effectively to mark out the meaning in complex sentences.**	• **Parts of speech:** Identification of various parts of speech, appropriate usage in different contexts, impact of various tenses on verbs, phrasal verbs. • **Conditionals:** Appropriate usage of conditionals. • **Active and passive voice:** Identification of active and passive verbs, conversion from active to passive and vice versa. • **Simple, compound and complex sentences:** Identifying, differentiating and constructing compound and complex sentences.
Reading	**• Develop familiarity with the work of established authors and poets, identifying features which are common to more than one text.** **• Consider how the author manipulates the reaction of the reader, e.g. how characters and settings are presented.** **• Look for implicit meanings, and make plausible inferences based on more than one point in the text.** **• Analyse the success of writing in evoking particular moods, e.g. suspense.** **• Explore how poets manipulate and play with**	Children will extend their range of reading and will be provided exposure to various types of texts such as: • **Mythological stories (Greek and Indian).** • **Poems.** • **Story poems.** • **Excerpts from famous novels.** • **Stories- fictional and non-fictional.** • **Fact files.** • **Biographies and autobiographies.** Children will be exposed to silent and loud reading exercises, reading theatres and dramatization of various texts that are read by them. **Malgudi Schooldays** will also be

	words and their sounds. **• Read and interpret poems in which meanings are implied or multilayered.** **• Analyse how paragraphs and chapters are structured and linked.** **• Recognise key characteristics of a range of non-fiction text types.** **• Explore autobiography and biography, and first and third person narration.** **• Distinguish between fact and opinion in a range of texts and other media.**	read by using the above mentioned strategies. They will also view several episodes of the same series.
Writing	**• Plan plot, characters and structure effectively in writing an extended story.** **• Manage the development of an idea throughout a piece of writing, e.g. link the end to the beginning.** **• Establish and maintain a clear viewpoint, with some elaboration of personal voice.** **• Use different genres as models for writing.** **• Use paragraphs, sequencing and linking them appropriately to support overall development of the text.** **• Use a range of devices to support cohesion within paragraphs.** **• Develop some imaginative detail through careful use of vocabulary and style.** **• Present an explanation or a point of view in**	Based on the reading that the children will do, appropriate writing exercises will be provided to them after exposing them to appropriate strategies and the relevant rules for writing the various types of texts. Some of them have been listed below: • **Mythological stories (Greek and Indian).** • **Poems.** • **Story poems.** • **Stories- fictional and non-fictional.** • **Fact files.** • **Biographies and autobiographies.**

	ordered points, e.g. in a letter. **• Collect and present information from non-fiction texts.** **• Make short notes from a text and use these to aid writing.** **• Summarise a sentence or a paragraph in a limited number of words.**	
Speaking and listening	**• Express and explain ideas clearly, making meaning explicit.** **• Use spoken language well to persuade, instruct or make a case, e.g. in a debate.** **• Vary vocabulary, expression and tone of voice to engage the listener and suit the audience, purpose and context.** **• Structure talk to aid listener's understanding and engagement.** **• Speak confidently in formal and informal contexts.** **• Pay close attention in discussion to what others say, asking and answering questions to introduce new ideas.** **• Help to move group discussion forward, e.g. by clarifying, summarising.** **• Prepare, practise and improve a spoken presentation or performance.** **• Convey ideas about characters in drama in different roles and scenarios through**	• Children will participate in class discussions in which they will listen to everyone's point of view and then make appropriate comments. • Children will be exposed to listening comprehensions and will solve verbal exercises based on the same. • Children will incorporate the grammar and punctuation rules while speaking. • Children will use appropriate voice modulation techniques based on the task at hand (interactive assemblies, class meets, etc.)

	deliberate choice of speech, gesture and movement. **• Reflect on variations in speech, and appropriate use of standard English.**	

Mathematics

Strands	CPP Expectations	Learning Experiences
Number and Number System	**• Count on and back in steps of constant size, extending beyond zero.** **• Know what each digit represents in five- and six digit numbers.** **• Partition any number up to one million into thousands, hundreds, tens and units.** **• Round four-digit numbers to the nearest 10, 100 or 1000.** **• Order and compare numbers up to a million using the > and < signs.** **• Order and compare negative and positive numbers on a number line and temperature scale.** **• Calculate a rise or fall in temperature.** **• Recognise and extend number sequences.**	**Whole numbers:** Children will recapitulate and understand the concept of place value by handling materials like ice cream sticks and playing games (clicks, claps, taps). • **Numbers up to 100 000.** • **Numbers in words up to 100 000.** • **Place value (up to 100 000).** Children will understand and appropriately use Roman Numerals by understanding its relevance, using it to number pages, changing the labels on things like prize tags to Roman numerals and participating in multiplication quizzes whose answers would be written in Roman Numerals. • **Roman Numerals (up to 1000).** Children will understand the concept of number formation, comparing and ordering by handling digit cards and playing positioning games (ascending and descending order, smallest and largest number). • **Comparing and ordering**

		numbers. Children will understand the concept rounding off up to the nearest 10000 by collecting materials like real estate advertisements, areas of places from the atlas, etc. and then rounding off the large numbers which they encounter. They will also participate in engagements dealing with Visio- spatial awareness by estimating and clipping numbers on a number line. • **Rounding off numbers (to the nearest 10000).** • **Large numbers (more than 100 000).** Children will understand the concept of negative numbers by handling real life examples of sub zero temperatures and calculate differences in temperatures by using number lines. • **Negative Numbers.** Children will design certificates for their peers by making use of ordinal numbers to understand their appropriate usage. • **Ordinal numbers.** **Addition:** Children will understand and handle addition problems by participating in games like pass it on (by adding at every step), addition drills, buzz, etc. • **Two digit addition.** • **Addition facts.** • **Addition algorithms.** • **Number lines.** • **Addition of money.** • **Addition problems.**

	• **Know multiplication and division facts for the 2× to 10× tables.** • **Know and apply tests of divisibility by 2, 5, 10 and 100.** • **Recognise multiples of 6, 7, 8 and 9 up to the 10th multiple.** • **Find factors of two-digit numbers.** • **Multiply multiples of 10 to 90, and multiples of 100 to 900, by a single-digit number.** • **Multiply by 19 or 21 by multiplying by 20 and adjusting.** • **Multiply by 25 by multiplying by 100 and dividing by 4.** • **Use factors to multiply, e.g. multiply by 3, then double to multiply by 6.** • **Double any number up to 100 and halve even numbers to 200** • **Double multiples of 10 to 1000 and multiples of 100 to 10 000, e.g. double 360 or double 3600, and derive the corresponding halves.**	• **Four digit additions.** **Subtraction:** Children will understand and handle subtraction problems by setting up mock shopping sprees and playing various subtraction games. • **Subtraction of money.** • **Subtraction strategies.** • **Subtraction method.** • **Checking answers.** • **Addition and subtraction.** • **Using addition and subtraction.** **Multiplication:** Children will understand the concept of multiplication by playing games with dice, playing buzz, chanting tables, and handling physical data, understanding real life scenarios. • **Factors and multiples.** • **Multiplication (X1, X2 and X3 digit numbers).** • **Money multiplication.** • **Multiplication algorithms.** • **Interesting numbers (prime, composite, squares and cubes)**

	• Multiply or divide three-digit numbers by single-digit numbers. **• Multiply two-digit numbers by two-digit numbers.** **• Divide three-digit numbers by single-digit numbers, including those with a remainder (answers no greater than 30).** **• Start expressing remainders as a fraction of the divisor when dividing two-digit numbers by single-digit numbers.** **• Decide whether to group (using multiplication facts and multiples of the divisors) or to share (halving and quartering) to solve divisions.** **• Decide whether to round an answer up or down after division, depending on the context.** **• Know squares of all numbers to 10 × 10.** **• Calculate differences between near multiples of 1000, e.g. 5026 – 4998.** **• Find the total of more than three two- or three-digit numbers using a written method.** **• Begin to use brackets to order operations and understand the relationship between the four operations and how the laws of arithmetic apply to multiplication.** **• Solve single and multi-**	**Division:** Children will understand the concept of division and the inverse relation between multiplication and division by participating in quizzes, solving Sudoku puzzles, dealing with real life situations, and handling actual materials. • **Division facts.** • **Mental division.** • **Division algorithms.** • **Division signs and zero.** • **Remainders.** • **Matching quotients.** • **Inverse checking.** • **Four digit division.** • **Dividing by 10.** • **Problem solving.** **Extended work on the four basic operations:** Children will analyze various addition and subtraction strategies and shortlist the fastest way of reaching an answer. They will work with square and cube grids and collect data from real life like supermarket brochures and prize tags to understand the below mentioned concepts:

	step word problems (all four operations); represent them, e.g. with diagrams or a number line. **• Check with a different order when adding several numbers or by using the inverse when adding or subtracting a pair of numbers.** **• Use multiplication to check the result of a division, e.g. multiply 3.7 × 8 to check 29.6 ÷ 8.** **• Estimate and approximate when calculating, e.g. using rounding, and check working.** **• Consider whether an answer is reasonable in the context of a problem.** **• Recognise equivalence between:** **• Change an improper fraction to a mixed number, e.g. 4 7 to 1 4 3 ; order mixed numbers and place between whole numbers on a number line.** **• Relate finding fractions to division and use to find simple fractions of quantities.** **• Use fractions to describe and estimate a simple proportion, e.g. 5 1 of the beads are yellow.** **• Use ratio to solve problems, e.g. to adapt a recipe for 6 people to one for 3 or 12 people.**	• **Addition of 3 and 4 numbers together.** • **Subtraction of decimals.** • **Averages/ mean.** • **BODMAS.** **Fractions:** Children will understand unitization of fractions, study various shapes to understand the concept of part of the whole, play games like fraction dominoes and memory to understand the below mentioned concepts: • **Fraction equivalence.** • **Fractions of groups and wholes.** • **Fractions on number lines.**
Geometry		**Will be covered up in Term II.**

Measure		Will be covered up in Term II.
Handling data	**• Answer a set of related questions by collecting, selecting and organising relevant data; draw conclusions from their own and others' data and identify further questions to ask.** **• Draw and interpret frequency tables, pictograms and bar line charts, with the vertical axis labelled for example in twos, fives, tens, twenties or hundreds. Consider the effect of changing the scale on the vertical axis.** **• Construct simple line graphs, e.g. to show changes in temperature over time.** **• Understand where intermediate points have and do not have meaning, e.g. comparing a line graph of temperature against time with a graph of class attendance for each day of the week.** **• Find and interpret the mode of a set of data.**	**Data Handling:** Children will collect materials from newspapers, encyclopedias, atlases, etc, in order to understand the various uses of graphs and interpret them appropriately. They will collect data from real life situations and present it using the most appropriate graph. • **Picture graph.** • **Drawing a picture graph.** • **Tally marks.** • **Bar graph.** • **Horizontal bar graph.** • **Gathering data.** • **Representing data.** • **Line graph.** • **Reading and drawing a line graph.** • **Mean median and mode.**

Science

Strands	CPP Expectations	Learning Experiences
Scientific Enquiry	**• Use observation and measurement to test predictions and make links.** **• Make predictions of what will happen based on scientific knowledge**	Children will perform experiments and draw inferences, view demonstrations, watch videos, conduct surveys, study the model of the human eye and make observations from, study the model of the

	and understanding, and suggest and communicate how to test these. **• Use knowledge and understanding to plan how to carry out a fair test.** **• Collect sufficient evidence to test an idea.** **• Identify factors that need to be taken into account in different contexts.** **• Make relevant observations.** **• Discuss the need for repeated observations and measurements.** **• Know that scientists have combined evidence with creative thinking to suggest new ideas and explanations for phenomena.** **• Recognise and make predictions from patterns in data and suggest explanations using scientific knowledge and understanding.** **• Interpret data and think about whether it is sufficient to draw conclusions.**	Solar System, make 3D models of the solar system, work with the globe, play different positioning games, conduct research and make presentations in order to understand and learn the below mentioned topics:
Physics	**<u>Light:</u>** **• Observe that shadows are formed when light travelling from a source is blocked.** **• Investigate how the size of a shadow is affected by the position of the object.** **• Observe that shadows change in length and position throughout the**	**Light:** • **Linear propagation of light and shadow formation.** • **Impact of position of object and light source on the size of the shadow.** • **Different lengths of shadows at different times of the day.** • **Light intensity- ways and units of measuring it.**

	day. **• Know that light intensity can be measured.** **• Explore how opaque materials do not let light through and transparent materials let a lot of light through.** **• Know that we see light sources because light from the source enters our eyes.** **• Know that beams/rays of light can be reflected by surfaces including mirrors, and when reflected light enters our eyes we see the object.** **• Explore why a beam of light changes direction when it is reflected from a surface.**	**• Transmission of light through transparent, translucent and opaque materials.** **• Mechanism of the human eye.** **• Process and properties of reflection.**
	<u>The Earth and beyond:</u> **• Explore, through modelling, that the sun does not move; its *apparent* movement is caused by the Earth spinning on its axis.** **• Know that the Earth spins on its axis once in every 24 hours.** **• Know that the Earth takes a year to orbit the sun, spinning as it goes.** **• Research the lives and discoveries of scientists who explored the solar system and stars.**	**The Earth and Beyond:** **• The Solar System.** **• Processes of rotation and revolution.** **• Lives and discoveries of scientists who contributed by making findings in the field of the solar system.**

Scientific Enquiry	**• Make predictions of what will happen based on scientific knowledge and understanding, and suggest and communicate how to test these.** **• Use knowledge and understanding to plan how to carry out a fair test.** **• Collect sufficient evidence to test an idea.** **• Identify factors that need to be taken into account in different contexts.** **• Make relevant observations.** **• Measure volume, temperature, time, length and force.** **• Discuss the need for repeated observations and measurements.** **• Present results in bar charts and line graphs.** **• Decide whether results support predictions.** **• Begin to evaluate repeated results.**	Children will hypothesize, perform experiments, view demonstrations, make observations, conduct surveys and be exposed to different instruments used to measure temperature in order to learn and understand the below mentioned topics.
Chemistry	**<u>States of matter:</u>** **• Know that evaporation occurs when a liquid turns into a gas.** **• Know that condensation occurs when a gas turns into a liquid and that it is the reverse of evaporation.** **• Know that air contains water vapour and when this meets a cold surface it may condense.** **• Know that the boiling point of water is 100°C and the melting point of**	**States of Matter:** • **Conditions required for evaporation.** • **Conditions required for condensation.** • **The various processes involved in the water cycle.** • **Boiling, melting and freezing point- their relevance and interconnection.** • **Impact of boiling and evaporation on a solute in a solution.**

	ice is 0°C. **• Know that when a liquid evaporates from a solution the solid is left behind.**	
Scientific Enquiry	**• Know that scientists have combined evidence with creative thinking to suggest new ideas and explanations for phenomena.** **• Use observation and measurement to test predictions and make links.** **• Make predictions of what will happen based on scientific knowledge and understanding, and suggest and communicate how to test these.** **• Recognise and make predictions from patterns in data and suggest explanations using scientific knowledge and understanding.** **• Interpret data and think about whether it is sufficient to draw conclusions.**	Children will view demonstrations and videos, participate in sequencing activities, study live specimen of flowers, conduct investigations and surveys, hypothesize and validate their hypothesis using appropriate justification in order to learn and understand the below mentioned topics:
Biology	**<u>Plants:</u>** **• Know that plants need energy from light for growth.** **• Know that plants reproduce.** **• Observe how seeds can be dispersed in a variety of ways.** **• Investigate how seeds need water and warmth for germination, but not light.** **• Know that insects pollinate some flowers.**	**Life cycle of a plant:** • **Growth of plants.** • **Life processes of plants, respiration, growth and reproduction.** • **Seed dispersal by means of wind, water and animals.** • **Factors requires for germination.** • **Reproductive parts of a flowering plant.** • **Production of seeds- pollination and fertilization.**

	• Observe that plants produce flowers which have male and female organs; seeds are formed when pollen from the male organ fertilises the ovum (female). **• Recognise that flowering plants have a life cycle including pollination, fertilisation, seed production, seed dispersal and germination.**	

Social Studies

Strands	**Learning Experiences**
Ancient Civilizations: • **Reasons for establishment of civilizations.** • **Ancient River Valley civilizations:** ➢ **Mesopotamia.** ➢ **India.** ➢ **China.** ➢ **Egypt.**	Children will hypothesize, participate in discussions, view videos and documentaries, read case studies, prepare projects and power point presentations to understand the relevance and features of various ancient civilizations.

French:

Strands	Learning Experience
Speaking and Listening	Self-introduction (Broaching a conversation - talking about yourself, your age, your family, your daily routine, your likes/dislikes and your friends) through Role Plays and Dialogues.
Reading	Picture compositions and comprehensions
Writing	Sentence/paragraph writing, based on textual topics.
Grammar And Punctuation	Definite and Indefinite Articles, Conjugations of 'ER' verbs, 'IR' verbs and a few irregular verbs in the Present Tense (affirmative and negative forms); Possessive Adjectives; Formation of Feminines and Plurals (general)

Hindi:

Strands	Learning Experiences
Speaking and listening	• Students will participate in class discussions and listen to everyone's view. • Students will be exposed to listen to stories and will solve questions based on them.
Reading	• Students will read books from the library, newspaper, poetry, lessons from textbook. • Explore implicit as well as explicit meanings within the text.
Writing	• Students will do appropriate writing exercises through letters, stories, and autobiography, essay-writing. • Writing number names till 100. • Present an explanation in ordered points.
Grammar and punctuation	• Students will be able to understand usage of singulars and plurals in different contexts. • Students will be introduced to the concept of parts of speech [nouns, verbs and adjectives]. Students will be able to understand that different types of the same exist and will learn to identify and use them in their written work. • Students will be able to identify pronouns and understand their importance in a sentence.

Suggested Reading for children and parents: Grade V

Recommended Series	**Classic Start Series**
	Collection of Classics by Puffins
	Harper Collin's Children's books
	Random House Children's books
Recommended Books	**Scary stories for ten year olds- Helen Paiba**
	Journey to the River Sea- Eva Ibbotson
	Chicken soup for the soul: Just for the Preteens
	Which Witch?- Eva Ibbotson
Recommended children's books by the following authors:	**Michael Morpurgo**
	Helen Cresswell
	Rick Riordon
	J.K. Rowling
	Sudha Murthy
	R.K. Narayan
	Anushka Ravishankar
Recommended books for parents:	**The Monk Who Sold His Ferrari- Robin Sharma**
	Parenting with Love and Logic- Foster Cline
	The Secret- Rhonda Byrne