



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

English

Strands	CIPP expectations	Learning Experiences
<p>Phonics, Spelling and Vocabulary</p>	<ul style="list-style-type: none"> • Use effective strategies for learning new spellings and misspelt words. • Learn spelling rules for words ending in -e and -y, e.g. take/taking, try/tries. • Know rules for doubling consonants and investigate patterns in these of single and double consonants, e.g. -full/-ful. • Investigate spelling patterns for pluralisation, e.g. -s, -es, -y/-ies, -f/-ves. • Extend earlier work on prefixes and suffixes, recognising that different spelling rules apply for suffixes which begin with vowels and those that begin with consonants • Use dictionaries efficiently and carry out ICT spell checks. • Identify unfamiliar words, explore definitions and use new words in context. • Extend understanding of the use of adverbs to qualify verbs, e.g. in dialogue. • Use a thesaurus to extend vocabulary and choice of words. • Collect synonyms and opposites and investigate shades of meaning. • Use known spellings to work out the spelling of related words. • Identify word roots and derivations to support spelling and vocabulary, e.g. sign, signal, signature. 	<ul style="list-style-type: none"> • Plurals-Children will distinguish between consonants and vowels , identify/use show me cards/identify through observation and classify words into those ending with ‘s’ for plurals and those that end with ‘es’/ Children will identify through observation that when a word ends in consonant + y , then ‘y’ changes to ‘ies’ to create plurals. Explore, investigate and practice will be provided – wherein children will scan their reading books to find examples of plural words that follow rules and also investigate exceptions . • Prefixes/Suffixes-Children will be encouraged to break up words into syllables (to comprehend that words with prefixes have two or more syllables). Children will suggest meanings of each prefix and discuss how adding a prefix changes the meaning of the word. Children will add suffixes -‘ful’ , ‘fully’ to the root word and comprehend spellings e.g. beauty-beautiful-beautifully. • Word Families-Children will look at word structures and word families to extend their vocabulary and spelling skills.(e.g. words grow from a root word) • Dictionary Work-Children will regularly use dictionaries to check their spellings while working through activities.
<p>Grammar and punctuation</p>	<ul style="list-style-type: none"> • Identify prepositions and use the term. • Understand conventions of standard English, e.g. agreement of verbs. • Use apostrophes for both possession and shortened forms. • Begin to set out dialogue appropriately, 	<p>(Children will)</p> <ul style="list-style-type: none"> • Parts of Speech-Compose sentence using adjectives, verbs and nouns for precision, clarity and impact. • Complete sentences using nouns, adjectives, verbs and adverbs.

	<p>using a range of punctuation.</p> <ul style="list-style-type: none"> • Use pronouns, making clear to what or to whom they refer. • Practise proofreading and editing own writing for clarity and correctness. 	<ul style="list-style-type: none"> • Tenses-Write paragraphs to depict their regular day and then rewrite the sentences in the past/future. • Understand that some verbs add ‘d’ or ‘ed’ to make the past tense. Some change the middle vowel/some change completely to make the past tense • Adapt sentence construction to different text-types, purposes and readers. • Look at pictures and discuss comparative and superlative adjectives e.g. cold, colder, coldest. • Play an adverb game to state the type of adverb. • Understand the use of apostrophes by reading through contractions in dialogues in stories and discuss how strange it sounds when we speak without using contractions. • Will rewrite play scripts as conversations using direct speech. • Write passages using pronouns where appropriate. • Punctuation- • Punctuate sentences accurately using speech marks and apostrophes.
<p>Reading</p>	<ul style="list-style-type: none"> • Read widely and explore the features of different fiction genres. • Provide accurate textual reference from more than one point in a story to support answers to questions. • Compare the structure of different stories. • Comment on a writer’s use of language and explain reasons for writer’s choices. • Identify the point of view from which a story is told. • Consider how a writer expresses their own point of view, e.g. how characters are presented. • Read and identify characteristics of myths, legends and fables. • Read poems by significant poets and compare style, forms and themes. • Skim read to gain an overall sense of a text and scan for specific information. • Develop note-taking to extract key points 	<p>(Children will)</p> <ul style="list-style-type: none"> • Descriptive Reading - learn to do a good description (with a word bank)by elaborating, adding adjectives. • Stories/Fables-Read fables, identify features, write their own fables. • Poems-Read a variety of poems and state the tone of voice depicted and try to comprehend how detailing in poetry adds colour to language. • Folk Tales-Read folk tales , distinguish it from other types of stories, comprehend the language used and identify how characters have been depicted by the writer.

	and to group and link ideas.	
Writing	<ul style="list-style-type: none"> • Map out writing to plan structure, e.g. paragraphs, sections, chapters. • Write new scenes or characters into a story, or write from another viewpoint. • Write own versions of legends, myths and fables, using structures from reading. • Choose words and phrases carefully to convey feeling and atmosphere. • Maintain a consistent viewpoint when writing. • Begin to attempt to establish links between paragraphs using adverbials. • Use a more specialised vocabulary to match the topic. • Review, revise and edit writing in order to improve it, using ICT as appropriate. 	<p>(Children will)</p> <ul style="list-style-type: none"> • Descriptive writing-Use the given word lists to help write descriptions of people using appropriate vocabulary words based on physical descriptions/attire. • Stories – Fables -Write out their own fables based on features of fables. • Sequencing -Filter information to identify the key ideas in paragraphs and create a proper sequence of sentences in the written form to story with an appropriate beginning, middle and ending. • Folk Tales -Write out features of myths (beliefs of lifestyles, explain phenomena)and understand how they differ from legends. • Story Writing -Recognise the elements of a story and identify fairy tales and research other similar types of fairy stories. • Poems -Identify types of poems (rhyming and non-rhyming) and write their own poems • Writing poems-Write alliterative poems
Speaking and listening	<ul style="list-style-type: none"> • Shape and organise ideas clearly when speaking to aid listener. • Take different roles and responsibilities within a group. • Convey ideas about characters in drama through deliberate choice of Speech, gesture and movement. • Begin to discuss how and why language choices vary in different situations • Recall and discuss important features of a talk, possibly contributing new ideas. • Ask questions to develop ideas and extend understanding 	<p>Children will</p> <ul style="list-style-type: none"> • Take part in framing sentences for structural practice. • Identify phrasal verbs. • Recite poems to pick up alliterations. • Recite poems giving characters of the poem a tone of voice . • Learn and recite poems as choral reading . • Discuss how moods and feelings have been created by writers to describe spaces and moods.

STRANDS	CIPP EXPECTATIONS	Learning Experiences
<p>Number and number calculation</p>	<ul style="list-style-type: none"> • Read and write numbers up to 10 000. • Count on and back in ones, tens, hundreds and thousands from four-digit numbers. • Understand what each digit represents in a three- or four-digit number and partition into thousands, hundreds, tens and units. • Find multiples of 10, 100, 1000 more/less than numbers of up to four digits, e.g. $3407 + 20 = 3427$. • Multiply and divide three-digit numbers by 10 (whole number answers) and understand the effect; begin to multiply numbers by 100 and perform related divisions. • Recognise multiples of 5, 10 and 100 up to 1000. • Round three- and four-digit numbers to the nearest 10 or 100. • Position accurately numbers up to 1000 on an empty number line or line marked off in multiples of 10 or 100. • Estimate where three- and four-digit numbers lie on empty 0–1000 or 0–1000 lines • Compare pairs of three-digit or four-digit numbers, using the > and < signs, and find a number in between each pair. <p>Calculation Mental strategies</p> <ul style="list-style-type: none"> • Derive quickly pairs of two-digit numbers with a total of 100, e.g. $72 + = 100$. • Derive quickly pairs of multiples of 50 with a total of 1000, e.g. $850 + = 1000$. • Know multiplication for $2\times$, $3\times$, $4\times$, $5\times$, $6\times$, $9\times$ and $10\times$ tables • Identify simple fractions with a total of 1, e.g. derive division facts. • Recognise and begin to know multiples of 2, 3, 4, 5 and 10, up to the tenth multiple. • Add three or four small numbers, finding pairs that equal 10 or 20. • Add three two-digit multiples of 10, e.g. $40 + 70 + 50$. • Add and subtract near multiples of 10 or 	<p>(Children will)</p> <p>Four Digit/Five and Six Digit Numbers-</p> <ul style="list-style-type: none"> • Make/Read/Write/Order four digit/five/six digit numbers with given numerals. • Explain place value using numeral expander. • Use the expanded notation and record numbers. • Explain the place value of given digit in the given number. • Rounding 1000s(to round to the nearest thousand look at the hundreds place) e.g. $1\ 704 - 2\ 000$ • Explain position using ordinals. • Use numeral expanders: guessing games, number lines place value bingo cards, choosing card games; use four digits in relation to dates. • Use numeral expanders: guessing games, number lines place value bingo cards, choosing card games; use four digits in relation to dates. <p>Addition:</p> <ul style="list-style-type: none"> • Use grids, use addition for trading operations, solve addition algorithm. • Use known number facts to aid in addition problems. • Use jump, split and compensation strategies for additions . • e.g. Jump strategy $78 + 23 = 78 + 20 = 98$. $98 + 3 = 101$ • Split strategy $58 + 14 = 50 + 10 + 8 + 4 = 72$ • Use doubles and near doubles to aid addition • Solve word problems. <p>Subtraction:</p> <ul style="list-style-type: none"> • Solve four-digit subtraction sums. • Use ice cream sticks to subtract – trading tens • Subtract two-digit numbers without trading. • Use patterns to extend number facts. • Use an empty number line to represent and solve subtraction problems. • Apply the inverse relationship of addition and subtraction to solve

	<p>100 to or from three-digit numbers, e.g. $367 - 198$ or $278 + 49$.</p> <ul style="list-style-type: none"> • Add any pair of two-digit numbers, choosing an appropriate strategy. • Subtract any pair of two-digit numbers, choosing an appropriate strategy. • Find a difference between near multiples of 100, e.g. $304 - 296$. • Subtract a small number crossing 100, e.g. $304 - 8$. <ul style="list-style-type: none"> • Multiply any pair of single-digit numbers together. • Use knowledge of commutativity to find the easier way to multiply. • Understand the effect of multiplying and dividing three-digit numbers by 10. • Derive quickly doubles of all whole numbers to 50, doubles of multiples of 10 to 500, doubles of multiples of 100 to 5000, and corresponding halves. <p>Addition and subtraction</p> <ul style="list-style-type: none"> • Add pairs of three-digit numbers. • Subtract a two-digit number from a three-digit number. • Subtract pairs of three-digit numbers. <p>Multiplication and division</p> <ul style="list-style-type: none"> • Double any two-digit number. • Multiply multiples of 10 to 90 by a single-digit number. • Multiply a two-digit number by a single-digit number. • Divide two-digit numbers by single digit-numbers (answers no greater than 20). • Decide whether to round up or down after division to give an answer to a problem. • Understand that multiplication and division are the inverse function of each other. <p>Order and compare two or more fractions with the same denominator (halves, quarters, thirds, fifths, eighths or tenths).</p> <ul style="list-style-type: none"> • Recognise the equivalence between: $\frac{1}{2}, \frac{2}{4}, \frac{4}{8}, \frac{5}{10}; 1\frac{1}{4}, \frac{2}{8}; 1\frac{1}{5}, \frac{2}{10}$. • Use equivalence to help order fractions, e.g. $\frac{7}{10}, \frac{3}{4}$ • Understand the equivalence between one-place decimals and fractions in tenths. • Understand that $\frac{1}{2}$ is equivalent to 0.5 and also to $\frac{5}{10}$. • Recognise the equivalence between the decimal fraction and vulgar fraction forms of 	<p>problems.</p> <p>Multiplication:</p> <ul style="list-style-type: none"> • Recall or work out multiplication facts up to 10×10. • Determine factors for given number. • List multiples of given number. • Solve multiplication problems using a written algorithm • Division: Write division number sentences to solve problems. Record reminders to division problems. • Use multiplication facts to obtain division facts • Apply inverse operations to check answers. <p>Prime numbers and composite numbers-</p> <ul style="list-style-type: none"> • Children will learn about the prime numbers and composite numbers and solve various exercises based on the same. <p>Addition:</p> <ul style="list-style-type: none"> • Use mental strategies for addition – jump/compensation strategies for mental additions. • Work in pairs to find answers to algorithms. • e.g. write a 2-digit plus 2-digit algorithm ($27 + 34$) <p>Subtraction:</p> <ul style="list-style-type: none"> • Use the jump/compensation strategy for mental subtraction. • Children will work out and state different strategies to mentally work out subtraction sums. <p>Multiplication:</p> <ul style="list-style-type: none"> • Practice multiplication patterns orally $6 \times 4 = ?$, $6 \times 400 = ?$ • Use the prime number game to revise prime numbers. • Discuss squares by using square block pattern • Use mental strategies to approximate answer • Use multiplication wheels. • Use multiple clapping game for tables. • Use associate property to multiply $5 \times 2 \times 7 = 5 \times 7 \times 2$ <p>Division:</p> <ul style="list-style-type: none"> • Division fact – child gives a division fact e.g. a division fact where the answer is 7, • Then class discusses is it $42/6$??
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	<p>halves, quarters, tenths and hundredths.</p> <ul style="list-style-type: none"> • Recognise mixed numbers, e.g. $5\frac{3}{4}$, and order these on a number line. • Relate finding fractions to division. • Find halves, quarters, thirds, fifths, eighths and tenths of shapes and numbers. 	<p>Children will:</p> <p>Play games and stick out different shapes of $\frac{1}{4}$, $\frac{1}{2}$ to show 1 whole.</p> <p>Show equal proportions by using Fraction strips.</p> <p>Use concrete material and draw to observe the proximity of a fraction to the numerical benchmarks of 0, $\frac{1}{2}$. and 1 whole.</p> <p>Work with peer- Representation of fraction as part of a whole.</p> <p>Make 10 x 10 grid to show how much of portion is not shaded to understand the concept of decimal.</p> <p>Locate numbers on an open number line by considering their proximity to other numbers on the line.</p> <p>Observe the reasonableness of numbers in various situations.</p> <p>Estimate quantities and visualize what a small quantity looks like, and then use that quantity as a reference point to estimate large quantity.</p>
<p>GEOMETRY</p>	<ul style="list-style-type: none"> • Know that angles are measured in degrees and that one whole turn is 360degrees and that one whole turn is 360degrees or four right angles;compare and order angles less than 180degrees. • Classify polygons (including a range of quadrilaterals) using criteria such as the number of right angles, whether or not they are regular and their symmetrical properties. • Identify and sketch lines of symmetry in 2D shapes and patterns. • Find examples of shapes and symmetry in the environment and in art. 	<p>Children will</p> <ul style="list-style-type: none"> • Identify different types of angles – right, acute and obtuse. • Draw angles with the help of the protractor. • Will identify straight angles. • Will identify angles at a point. <p>Explore different shapes to acquire idea about names of different 2D shapes.</p> <p>Learn properties of quadrilateral through activities. Children will make square, rectangle, parallelogram, rhombus with the help of straws.</p> <p>Children will use pin boards to create a range of polygons.</p> <p>Observe square pattern block, triangle pattern block and rhombus on the overhead projector to discuss and compare right angle, acute and obtuse angles.</p> <p>Draw perpendicular and parallel line segments.</p>
<p>MEASURES</p>	<p>Time</p> <ul style="list-style-type: none"> • Read and tell the time to nearest minute on 12-hour digital and analogue clocks. • Use am, pm and 12-hour digital clock notation. • Read simple timetables and use a calendar. • Choose units of time to measure time intervals. 	<p>Time</p> <p>Measuring time in seconds, minutes and hours- Children will be exposed to real life examples of time tables, daily routines, weekly, monthly, yearly events to understand the importance of time and its various units of measurement.</p> <p>12 hour and 24 hour clocks- Children will be exposed to analog and digital clocks and will be taught how to read a 12 hour and 24 hour clock and convert the time appropriately</p>

		from one type into another.
PROBLEM SOLVING	<ul style="list-style-type: none"> • Choose appropriate mental or written strategies to carry out calculations involving addition or subtraction. • Check the results of adding numbers by adding them in a different order or by subtracting one number from the total. • Check subtraction by adding the answer to the smaller number in the original calculation. • Check multiplication using a different technique, e.g. check $6 \times 8 = 48$ by doing 6×4 and doubling. • Check the result of a division using multiplication, e.g. multiply 4 by 12 to check $48 \div 4$. • Explain reasons for a choice of strategy when multiplying or dividing. • Choose strategies to find answers to addition or subtraction problems; explain and show working. 	<p>Children will</p> <ul style="list-style-type: none"> • Create their own word problems involving the operations of addition, subtraction, multiplication and division. • Use their mental skills and abilities to carry out operations of addition/subtraction for given word problems to present them in the written format. • Explain the strategy used and also apply cross-checks to verify derived answers. • Use doubling to carry out multiplication operations • Comprehend that multiplication and division are inverse functions to check answers.

Science

Strands	CIPP EXPECTATIONS	Learning Experiences
Scientific Inquiry	Children will plan, observe, investigate conduct recordings based on experiments ,field trips and surveys to make the teaching-learning process more meaningful.	Experiments based on sound – sound travels through vibrations, sound travels better through air/solids. Field Trip – Nehru Science Centre(planetary)(tentative)

<p>Physics</p>	<p>Sound</p> <ul style="list-style-type: none"> • Explore how sounds are made when objects, materials or air vibrate and learn to measure the volume of sound in decibels with a sound level meter. • Investigate how sound travels through different materials to the ear. • Investigate how some materials are effective in preventing sound from travelling through them. • Investigate the way pitch describes how high or low a sound is and that high and low sounds can be loud or soft. Secondary sources can be used. • Explore how pitch can be changed in musical instruments in a range of ways. 	<p>(Children will)</p> <ul style="list-style-type: none"> • How Sound Travels-Conduct simple experiments to understand that sound travels through vibrations. • Children will conduct and record observations to conclude whether sound travels better through solids or air • Volume/Pitch-Children will understand the difference between volume and pitch . • Musical Instruments-Children will comprehend how pitch is changed in different musical instruments.
<p>Scientific Inquiry</p>	<p>To create an approach which will make the teaching learning process more meaningful with experiments and surveys - Children will be guided to observe and record their observations based on laboratory experiments</p>	<p>Experiments to test factors that effects solubility , experiments to separate solids from liquids.</p>

<p>Chemistry</p>	<p>Pupils should know that:</p> <p>States of matter</p> <ul style="list-style-type: none"> • Know that matter can be solid, liquid or gas. • Investigate how materials change when they are heated and cooled. • Know that melting is when a solid turns into a liquid and is the reverse of freezing. • Observe how water turns into steam when it is heated but on cooling the steam turns back into water. <p>Distinguish between reversible and irreversible changes.</p> <ul style="list-style-type: none"> • Explore how solids can be mixed and how it is often possible to separate them again. • Observe, describe, record and begin to explain changes that occur when some solids are added to water. • Explore how, when solids do not dissolve or react with water, they can be separated by filtering, which is similar to sieving. • Explore how some solids dissolve in water to form solutions and, although the solid cannot be seen, the substance is still present. 	<p>Children will</p> <ul style="list-style-type: none"> • Classify matter • Observe changes in material on heating and cooling. • Understand the water cycle. • Define terms like evaporation, freezing , condensation, dissolving. • Conduct experiments to understand terms like solubility, solute and solution and define the terms. Comprehend how solubility gets effected. • Conduct experiments for separation of a solid from a liquid and comprehend processes like decantation and filtration.
<p>Scientific Inquiry</p>	<p>.To create an approach which will make the teaching learning process more meaningful with experiments and surveys - Children will be guided to observe and record their observations .</p>	<p>Children will watch audio visuals, visit the biology lab and carry out surveys.</p>
<p>Biology</p>	<p>Humans and animals</p> <ul style="list-style-type: none"> • Know that humans (and some animals) have bony skeletons inside their bodies. • Know how skeletons grow as humans grow, support and protect the body. • Know that animals with skeletons have muscles attached to the bones. • Know how a muscle has to contract (shorten) to make a bone move and muscles act in pairs. • Explain the role of drugs as medicines. 	<p>(Children will)</p> <ul style="list-style-type: none"> • Human Skeleton-Show and tell the bones that make up the human skeleton • Muscles -Illustrate and explain how muscles work in pairs. • Understand the functions of bones and muscles. • Types of Joints-Identify types of muscles and bones. • Distinguish between drugs which work as medicines and drugs which are harmful.

Strands	Learning Experiences
History	<p>INDIAN FREEDOM MOVEMENT</p> <p>A) Reasons for the establishment of British rule in India (Map reading)</p> <p>B) Freedom movement to achieve independence</p> <p>C) Freedom fighters</p>

French

Listening & speaking	Children will listen to the sentences to reinforce correct speaking sentences using the parts of grammar e.g verbs, nouns, adjective and articles. Children will be encouraged through dialogue practice to improve their language.(e.g - Role-play). They will watch audio-visuals/ websites.
Reading	Children will be exposed to various dialogues, rhymes, reading and doing the activity from the text with confidence.
Writing	Writing simple sentences using appropriate grammar, write with support sentences on topics covered from the text book, write sentences with proper usage of grammar like article, preposition, verb through picture situation, usage of masculine/feminine words. Children will read comprehensions and conjugate regular and irregular verbs. Children will be able to write directions to school subjects, time, sports and describe their day at school, and over the weekends.

Hindi

Strands	Learning Experiences
Speaking and Listening	<ul style="list-style-type: none"> Students will be given more practice on their presentation skills with reading, recitation, class discussion. Students will be exposed to listening comprehensions.
Reading	<ul style="list-style-type: none"> Read story books from the library. Use resources to check meaning and extend understanding. Reciting poems to recognize the difference between fact and opinion in simple text.
Writing	<ul style="list-style-type: none"> Writing number names till 75. Students will do appropriate writing exercises through stories, autobiography, essay-writing, unseen comprehension.
Grammar and punctuation	<ul style="list-style-type: none"> Students will be introduced to the concept of verbs. They will learn to identify and use them in their verbal and written work. Exposure to antonyms, singular/plural, synonyms. Students will be able to write sentences using proper punctuation and usage of grammar.

Recommended reading

- 1) Peter Pan by J.M.Barrie
- 2) Treasure Island by Robert Louis Stevenson
- 3) The Adventures of Tom Sawyer by Mark Twain
- 4) Little Women by Louisa May Alcott
- 5) The Jungle Book by Rudyard Kipling
- 6) Malgudi School days by R.K. Narayan
- 7) Gulliver's Travels by Jonathan Swift
- 8) Robinson Crusoe by Daniel Defoe

Series

- 1) Sherlock Holmes Adventure by Arthur Conan Doyle
- 2) Great Indian Classics From Amar Chitra Katha
- 3) Panchatantra Tales from Amar Chitra Katha
- 4) Visionaries from Amar Chitra Katha
- 5) Harry Porter series by J.K. Rowling
- 6) Percy Jackson series by Rick Riordan

Encyclopaedia (Reference books)

- 1) Encyclopaedia – The Human Machine by Richard Walker (Oxford)
- 2) Encyclopaedia - The Ultimate Book of Science (Oxford)