Thornhill Primary School
Annual Pupil Report

Subject	Year 5 National Curriculum Statements	Not yet achieved
Maths	***Number: Place Value***	
	Read, write, order and compare numbers to 1000000, and determine the value of each number e.g. the value of the 6 in 24,675.	
	Count forwards and backwards in both positive and negative numbers, and powers of 10 up to 1000000.	
	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.	
	Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 or 100000.	
	Solve number problems and practical problems that involve all of the above.	
	Read roman numerals to 1000 (I to M) and recognise years wrote in roman numerals.	
	Addition, Subtraction, Multiplication and Division	
	Add and subtract numbers with up to 4 digits using formal written methods.	
	Add and subtract numbers mentally with increasingly large numbers e.g. 12,462 -2300=10,162.	
	Using rounding to check answers to calculations e.g. 291+391= 300+400.	
	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	
	Identify multiples and factors, finding pairs of factors or a number and common factors of two numbers.	
	Know and use vocabulary of prime numbers, prime factors and composite (nonprime) numbers.	
	Establish whether a number up to 100 is prime and recall prime numbers up to 19.	
	Use formal written methods to multiply up to a four-digit number by one or two digit numbers.	
	Multiply and divide numbers mentally, drawing upon known facts.	
	Use formal written methods to divide up to a four-digit number by a single digit and interpret remainders appropriately for the context.	
	Multiply and divide whole numbers by 10, 100 and 1000.	
	Recognise and use square numbers and cube numbers and the notation for squared and cubed.	
	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	
	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	
	Solving problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	
	Fractions	
	Compare and order fractions whose denominators are all multiples of the same number, and add and subtract these fractions.	
	Identify, name and write the equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	
	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number.	
	Add and subtract fractions with the same denominator and denominators that are multiples of the same number.	
	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	
	Read and write decimal numbers as fractions.	
	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	
	Round decimals with two decimal places to the nearest whole number and to one decimal place.	
	Solve problems involving numbers up to three decimal places.	
	Recognise the per cent symbol (%) and understand that per cent related to number of parts per hundred and write percentages as a fraction with denominator 100 and as a decimal.	

	Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.	
	Measurement	
	Convert between different units of metric measure (e.g. kilometre to metre, kilogram to gram)	
	Measure and calculate perimeter of rectilinear shapes in centimetres and metres.	
	Use approximate equivalences to convert between metric units and common imperial units.	
	Calculate and compare the area of rectangles and estimate the area of irregular shapes.	
	Estimate volume and capacity.	
	Solve problems involving converting between units of time.	
	Geometry	
	Identify 3-D shapes from 2-D representation.	
	Know angles are measured in degrees : estimate and compare acute, obtuse and reflex angles.	
	Draw and measure given angles in degrees.	
	Identify angles at a point, on a straight line and a full turn.	
	Use the properties of rectangles to find missing lengths and angles.	
	Identify, describe and represent the position of a shape following a translation or reflection.	
	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.	
	Statistics	
	Complete, read and interpret information in tables.	
	Solve problems using information presented in charts and graphs	
English	**Spoken language**	
	Listen and respond appropriately to adults and their peers.	
	Ask relevant questions to extend their understanding and knowledge.	
	Use relevant strategies to build their vocabulary.	
	Articulate and justify answers, arguments and opinions.	
	Give well-structure descriptions, explanations and narratives for different purposes, including for expressing feelings.	
	Maintain attention and participate actively in collaborative conservations, staying on topic and initiating and responding to comments.	
	Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas.	
	Speak audibly and fluently with an increasing command of standard English.	
	Participate in discussions, presentations, performances, role play, improvisations and debates.	
	Gain, maintain and monitor the interest of the listener(s).	
	Consider and evaluate different viewpoints, attending to and building on the contribution of others.	
	Select and use appropriate registers for effective communication.	
	Word Reading	
	To read aloud and to understand the meaning of new words.	
	Apply their growing knowledge of root words, prefixes and suffixes.	
	Comprehension	
	To listen to and discuss a wide range of fiction, poetry, plays, non-fiction and reference books or text books.	
	Read books that are structured in different ways and reading for a range of purposes.	
	Increase their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literacy heritage, and books from other cultures and traditions.	
	Use dictionaries to check the meaning of words they have read.	
	Recommend books that they have read to their peers, giving reasons for their choices.	
	Preparing poems and play scripts to read aloud and perform, showing understanding intonation, tone and volume so that the meaning is clear the audience.	
	Identify and discuss theme and conventions in and across a wide range of writing.	
	Make comparisons with and across books.	
	Learn a wider range of poetry by heart.	
	Check that the book makes sense to then, discussing that their understanding and exploring the meaning of words in the context.	
	Ask questions to improve their understanding.	

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	Draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence.	
	Predict what might happen from details stated and implied.	
	Summarise the main ideas drawn from more than one paragraph, identifying key details that support the main ideas.	
	Identify how language, structure and presentation contribute to meaning.	
	Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.	
	Distinguish between states of fact and opinion.	
	Retrieve, record and present information from non-fiction.	
	Participate in discussions about books that are read to them and those they can read for themselves, building on their own and others ideas and challenge views courteously.	
	Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary.	
	Provide reasoned justifications for their views.	
	Writing- Transcription	
	Use further prefixes and suffixes and understand how to add them.	
	To spell homophones (to, too, two).	
	Continue to distinguish between homophones and other words are often confused.	
	Use a thesaurus.	
	To use a dictionary to check spellings and definitions.	
	Write legibly, fluently and increasing speed.	
	Choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters.	
	Choosing the writing implement that is best suited for the task.	
	Handwriting and Composition	
	Identify the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own.	
	Note and develop initial ideas, drawing on reading and research where necessary.	
	In writing narratives, consider how authors have developed characters and settings in what pupils have read, listened to or seen perform.	
	Select appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning.	
	In narratives, describe settings, characters and atmosphere and integrating dialogue to convey characters and advance the action.	
	Use a wide range of devices to build cohesion within and across paragraphs.	
	Using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points]	
	Assess the effectiveness of their own and others' writing.	
	Propose changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning.	
	Ensure the consistent and correct use tense throughout a piece of writing.	
	Ensure correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register.	
	Proof-read for spelling and punctuation errors.	
	Perform their own compositions, using appropriate intonation, volume, and movement so that the meaning is clear.	
	Vocabulary, Punctuation and Grammar	
	Recognise vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms.	
	Use passive verbs to affect the presentation of information in a sentence.	
	Use the perfect form of verbs to mark relationships of time and caus.	
	Use expanded noun phrases to convey complicated information concisely.	
	Use modal verbs or adverbs to indicate degrees of possibility.	
	Use relative clauses beginning with who, which, where, when, whose, that or with an implied (e.g. omitted) relative pronoun.	

	Use commas to clarify meaning or avoid ambiguity in writing.	
	Use hyphens to avoid ambiguity.	
	Use brackets, dashes or commas to indicate parenthesis.	
	Use semi-colons, colons or dashes to mark boundaries between independent clauses.	
	Use a colon to introduce a list.	
	Punctuate bullet points consistently.	
Science	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.	
	Describe the life process of reproduction in some plants and animals.	
	Describe the changes as humans develop old age.	
	Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity, (electrical and thermal), and response to magnets.	
	Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.	
	Use knowledge of solids, liquids and gases to decided how mixtures might be separated ,including through filtering, sieving and evaporating.	
	Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	
	Demonstrate that dissolving, mixing and changes of state are reversible changes.	
	Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate soda.	
	Describe the movement of the earth, and other planets, relative to the sun in the solar system.	
	Describe the movement of the moon relative to the earth.	
	Describe the sun, earth and moon as approximately spherical bodies.	
	Use the idea of the earth's rotation to explain day and night and the apparent movement of the sun across the sky.	
	Explain that unspotted objects fall towards the earth because of force of gravity acting between the earth and the falling object.	
	Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.	
	Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have greater effect.	
Art and Design	To create sketch books to record their observations and use them to review and revisit ideas.	
	To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]	
	Learn about great artists, architects and designers in history.	
Computing	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	
	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	
	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	
	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.	
	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	
	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	
	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	
Design and Technology	**Design**	
	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.	
	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	
	Make	

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	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	
	Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	
	Evaluate	
	Investigate and analyse a range of existing products.	
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	
	Understand how key events and individuals in design and technology have helped shape the world.	
	Technical Knowledge	
	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	
	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	
	Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].	
	Cooking and nutrition	
	Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	
	Understand and apply the principles of a healthy diet.	
	Prepare and cook a variety of predominantly savoury dishes using a range of cooking ingredients.	
Geography	**Locational Knowledge**	
	Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities.	
	Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time.	
	Place Knowledge	
	Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America.	
	Human and physical geography	
	Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.	
	Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water.	
	Geographical skills and fieldwork	
	Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.	
	Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.	
	Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.	
History	Changes in Britain from the stone age to the iron age.	
	The roman empire and its impact on Britain.	
	The Viking and Anglo-Saxon struggle for the kingdom of England to the time of Edward the confessor.	
	Britain's settlement by Anglo-Saxons ad Scots.	
	A local history study.	
	A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066.	
	The achievements of the earliest civilizations- an overview of where and when the first civilizations appeared and a depth study of ancient Egypt, Shang dynasty of China.	
	Ancient Greece- a study of Greek life and achievements and their influence on the western world.	

	A non-European society that provides contrast with British history- one study chosen from; early Islamic civilization, including a study from Baghdad c. AD900; Mayan civilization c. AD 900 ; Benin (West Africa) c.AD 900-1300.	
Languages	Listen attentively to spoken language and show understanding by joining in and responding.	
	Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words.	
	Speak in sentences, using familiar vocabulary, phrases and basic language structures.	
	Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases.	
	Present ideas and information orally to a range of audiences.	
	Read carefully and show understanding of words, phrases and simple writing.	
	Appreciate stories, songs, poems and rhymes in the language.	
	Broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary.	
	Write phrases from memory, and adapt these to create new sentences, to express ideas clearly.	
	Describe people, places, things and actions orally* and in writing.	
	Understand basic grammar appropriate to the language being studied, including (where relevant) : feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ or are similar to English.	
Music	Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression.	
	Improvise and compose music for a range of purposes using the inter-related dimensions of music.	
	Listen with attention to detail and recall sounds with increasing aural memory.	
	Use and understand staff and other musical notations.	
	Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians.	
	Develop an understanding of the history of music.	
P.E.	Use running, jumping, throwing and catching in isolation and in combination.	
	Play competitive games, modified where appropriate and apply basic principles suitable for attacking and defending.	
	Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics].	
	Take part in outdoor and adventurous activity challenges both individually and within a team.	
	Compare their performances with previous ones and demonstrate improvement to achieve their personal best.	