Year 6 Overview 2016/17

Reading

Reading: **Word Reading**

•apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), as listed in English Appendix 1, both to read aloud and to understand the meaning of new words that they meet.

Comprehension

Maintain positive attitudes to reading and understanding of what they read by: continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks. reading books that are structured in different ways and reading for a range of purposes increasing their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions. Recommending books that they have read to their peers, giving reasons for their choices Identifying and discussing themes and conventions in and across a wide range of writing making comparisons within and across books. Learning a wider range of poetry by heart. Preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience.

Understand what they read by: checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context. Asking questions to improve their understanding drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence. Predicting what might happen from details stated and implied. Summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas.

Identifying how language, structure and presentation contribute to meaning. Discuss and evaluate how authors use language. Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader. Distinguish between statements 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 challenging 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 the guidance for adding them. Spell some words with 'silent' letters [for example, knight, psalm, solemn] continue to distinguish between homophones and other words which are often confused. Use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically, as listed in English Appendix 1 Use dictionaries to check the spelling and meaning of words. Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary, use a thesaurus.

Handwriting & Presentation

Write legibly, fluently and with increasing speed by: 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 a task.

Composition

Plan their writing by: identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own. Noting and developing initial ideas, drawing on reading and research where necessary. In writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed.

Draft and write by: selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning. In narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action. Summarising longer passages using 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, underlining].

Evaluate and edit by: assessing the effectiveness of their own and others' writing. Proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning. Ensuring the consistent and correct use of tense throughout a piece of writing. Ensuring 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 meaning is clear.

Grammar

•recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms

•using passive verbs to affect the presentation of information in a sentence

•using the perfect form of verbs to mark relationships of time and cause

•using expanded noun phrases to convey complicated information concisely

•using modal verbs or adverbs to indicate degrees of possibility

•using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun

•learning the grammar for years 5 and 6 in English Appendix 2.

•Indicate grammatical and other features by:

•using commas to clarify meaning or avoid ambiguity in writing

•using hyphens to avoid ambiguity

•using brackets, dashes or commas to indicate parenthesis

•using semi-colons, colons or dashes to mark boundaries between independent clauses

•using a colon to introduce a list

•punctuating bullet points consistently

•use and understand the grammatical terminology in English Appendix 2 accurately and appropriately in discussing their writing and reading.

Number/Calculation **Number & Place Value** • read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • round any whole number to a required degree of accuracy • use negative numbers in context, and calculate intervals across zero solve number and practical problems that involve all of the above.	**Geometry & Measures** **Measurement** • solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up	**Fractions** use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 x 1/2 = 1/8]
Addition & Subtraction • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. • ** Italic objectives are in both addition and subtraction, and multiplication and division **Multiplication & Division** • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • identify common factors, common multiples and prime numbers • perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. • ** Italic objectives are in both addition and subtraction, and multiplication and division	to three decimal places • convert between miles and kilometres • recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3]. **Properties of Shapes** • draw 2-D shapes using given dimensions and angles • recognise, describe and build simple 3-D shapes, including making nets • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • **Position & Direction** • describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	divide proper fractions by whole numbers [for example, 1/3 of 2 = 1/6] associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8] identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places multiply one-digit numbers with up to two decimal places by whole numbers identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places solve problems which require answers to be rounded to specified degrees of accuracy recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. **Measurement Statistics** interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average. **Ratio & Proportion** solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. **Algebra** use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of two variables

Science skills across the year: Working Scientifically

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments.

Subject	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	I'm a year 6; Get me out of here!	Rainforests (South America/Brazil Study)	Victorians (We are not amused!?)	Ape or man?	Mayan Mahem	Hired or fired?
Texts and genres	**Kenzukes Kingdom-Michael Morpurgo** Narrative – Adventure, Poetry. N-Fiction: Leaflet, Persuasion, science fiction Biography/Autobiography, informal letter, Explanation		**Street Child -Bertie Doherty (Dr. Banardo) N-Fiction: Balanced argument, Radio advert, Narrative: Author study, Playscript**		**War Horse- Micheal Morpurgo N-Fiction: Diary, Report, informal letter/Formal letter, recounts Narrative: Historical story, Explanation, Poetry**	
PSHCE						

Science	**What would a journey through your body look like?** ***Animals (including humans)*** identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function describe the ways in which nutrients and water are transported within animals, including humans.	**Could Spiderman really exist?** ***Living Things & their Habitats*** describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals give reasons for classifying plants and animals based on specific characteristics	Who was Darwin? identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. Changes to the human skeleton over time- linked to advancement in science during Victorians.	**Have we always looked like this?** ***Evolution & Inheritance*** recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents .	**How can you light up your life?** ***Light*** recognise that light appears to travel in straight lines use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	**Could you be the next Nintendo apprentice?** ***Electricity*** associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches use recognised symbols when representing a simple circuit in a diagram. .
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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable	use sequence, selection, and repetition in programs; work with variables and various forms of input and output use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about	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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable	use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about	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,

	behaviour; identify a range of ways to report concerns about content and contact.		content and contact.	behaviour; identify a range of ways to report concerns about content and contact.	content and contact.	respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Design & 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 computeraided design **Make** 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] apply their understanding of computing to program, monitor and control their products. **Cooking & Nutrition** understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.				
History			**How did the Victorian period help to shape the Northampton we know today?** **A study of Local History taking account of a period of history that shaped the locality** **WOW: Children to go on a guided walk through a part of Northampton and photograph what was there 100 years ago; between 50 and 100 years ago; and less than 50 years ago. Look at canals, shoe industry in |Northampton**	**Historical figure study- Barnardo? Queen Victoria? Local History - A study of Local History taking account of a period of history that shaped the locality** **What was The Industrial Revolution and how did it impact on Northampton? What would the music of the time have been like?**	**Who were the Mayans and what have we learnt from them?** **WOW: Children to learn about the traditional game 'pok a tok' and recreate it, using resources available to them. A non European society that providescontrast with British history Mayan civilization around 900AD Who were the Mayans and where did they live?**	**… What evidence do we have that theMayans were an advanced civilization?What have the Mayan civilization in common with space travel?What can we learn from the way they built their pyramids? What do we know of the rituals carried out by the Mayan civilization?Why was the Sun an important feature in Mayan life? What caused the Mayan Civilization to disappear?Reflection: Create a television documentary to explain to everyone about the life of the Mayans, focusing on traditions, culture, sport and their knowledge.**
Geography	**I am a year 6 pupil, can you get me out of here?** **WOW: Take part in an orienteering activity around the school grounds. use the eight points of a compass, four-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United**	**Physical Why should rainforests be important to us all?** WOW: Show some film clips of the rainforests locate the world's countries, using maps to focus on South				

	Kingdom and the wider world **• use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies. What would a bird's eye view of your school look like? Can you put together a map of the immediate area around your school? Can you explain why your *town exists and what would have brought people to live there in the first place and why do people live there today? Can you use an OS map, including compass point directions, to help someone plan a route between two local points?If you got lost within 50 miles of your home, how would you go about finding your way home? From the photographs you have taken of the immediate area, can you create a painting?** **How would you go about planning a trip to a European city to include cost and time? As a class could you create an 'Urban' or 'Rural' School pointing out the features in your locality.** **Will you ever see the water you drink again? The importance of raw materials such as water** **WOW: *Show clips of extreme outcomes involving water, eg, waves crashing, rainstorm, waterfall, flood etc*. Understand the water cycle Why is water a major necessity in any village, town or city?** **How does rainwater form in the first place? Why do some places go for a long time without rain and others have too much rain?How is water used to help provide energy to many places?Can you create a moving toy that requires water to power it? What happens to the water in our home once it disappears down the sink?Which music is associated with water and can you create your own? Can you put together a presentation that outlines the water cycle?**	America and concentrating on their environmental regions, key physical and human characteristics. How can you create your own class rainforest? Where are rainforests located and what are their main features? Why are rainforests often in the news and what can we do to help? What can you find out about an endangered animal that lives in the rainforest? How important is the Amazon to the South American rainforests? Can you create a print using the large leaves of rainforest plants as your inspiration? How would you survive in the rainforest? Reflection: Present a documentary on a day in the rainforest				

RE	**What is prayer and meditation?** **WOW: Introduce a basic meditation session to the class and ask them to respond about how they felt. Pupils should be taught to observe and consider different dimensions of religion, so that they can explore and show understanding of similarities and differences within and between different religions**	**Why is Diwali celebrated by both Hindus and Sikhs?** WOW: Arrange a visit by a Hindu or a Sikh to talk about their beliefs and the importance Diwali. Pupils should be taught to understand the challenges of commitment to a community of faith or belief, suggesting why belonging to a community may be valuable,	**How can religious meaning be expressed through art?** WOW: Visit a local place of worship to see and record (if appropriate) symbols and artwork. **Pupils should be taught to explore and describe a range of beliefs, symbols and actions so that they can understand different ways of life and ways of expressing meaning Which art work do I like and why?** **What are the key features of Islamic art? What stories can be found in a church's stained glass windows?** **What are some of the 64 traditional Hindu arts?** **How is religion expressed through art in our community?** **How can I create a piece of art that is significant to me and my beliefs?**	**How do different religions celebrate marriage?** WOW: Watch a film of marriageceremonies from different religions. Pupils should be taughtto describe and make connections between different features of the religions and worldviews they study, discovering more about celebrations, worship, pilgrimages and the rituals which mark important points in life, in order to reflect on their	**What do people believe happens after someone dies?** WOW: Use literature to read examples of how different authors describe what happens after death. Pupils should be taughtto observe and understand varied examples of religions and worldviews so that they can explain, with reasons, their meanings and significance to
	and worldviews.Why do Buddhists meditate?What are the prayer rituals in Christianity, Islam and Judaism? Which prayers are associated with certain occasions for two different religions? Can I recognise some key prayers from major religions, and their significance? Can I write a prayer or poem linked to my life and beliefs?What does prayer or meditation mean to me?	both in the diverse communities being studied and in their own lives. What celebrations do the children in our class take part in each year? What do we remember about Diwali from Key Stage 1?What are the origins of Hinduism and Sikhism?Why and how is Diwali celebrated by both religions? Can I re-tell a story linked to Diwali?Why is it important for communities to come together for celebrations?	(Jesus Through Art by Margaret Cooling)	significance What do I celebrate? Who is special to me and why? How do Christians celebrate marriage? How do Muslims celebrate marriage? How do Hindus celebrate marriage? How do Humanists celebrate marriage? What do I believe about marriage?	individuals and communities. What do two religions represented in the community believe happens after someone dies? How do different religions celebrate the end of a person's life? What do different religions have in common? What do Humanists and Buddhists believe about death? How would I want to be remembered?
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] about great artists, architects and designers in history				
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 •engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help •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 from 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.					
Physical Education Swimming & Water Safety Swim competently, confidently and proficiently over a distance of at least 25 metres Use a range of strokes effectively [for example, front crawl, backstroke and breaststroke] Perform safe self-rescue in different water-based situations	Real PE scheme of work: unit 1 – Personal Skills Plus swimming	Real PE scheme of work: unit 2 - Social Skills Plus games	Real PE scheme of work: unit 3 – Cognitive Skills Plus Games	Real PE scheme of work: unit 4 – Creative Skills Plus dance	Real PE scheme of work: unit 5 – Applying physical skills Plus Gymnastics	Real PE scheme of work: unit 6 – Health and Fitness Plus Games