

## Year 6 curriculum overview - 2016/2017

### Termly literacy

**Reading - word reading** - Apply their growing knowledge of root words, prefixes and suffixes, both to read aloud and to understand the meaning of new words that they meet.

**Reading - comprehension** - Maintain positive attitudes to reading and understanding of what they read by: continuing to read and discuss an increasingly wide range of books, reading books that are structured in different ways and reading for a range of purposes, recommending books that they have read to their peers, identifying and discussing themes and conventions in and across a wide range of writing, making comparisons within and across books, learning a range of poetry by heart, showing understanding through intonation, tone and volume so that the meaning is clear to an audience. Understand what they read by: discussing their understanding and exploring of words in context, asking questions to improve their understanding, drawing inferences and justifying them with evidence, predicting what might happen, 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. Throughout the year, children will be encouraged to discuss and evaluate how authors use language, including figurative language, distinguish between statements of fact and opinion, retrieve, record and present information from non-fiction, participate in discussions, explain and discuss their understanding of what they have read through formal presentations and debates, maintaining a focus on the topic and using notes where necessary and provide reasoned justifications for their views.

**Writing - spelling** - Use and understand further prefixes and suffixes, spell some words with 'silent' letters, continue to distinguish between homophones and often confused words, understand that the spelling of some words needs to be learnt specifically, use dictionaries to check the spelling and meaning of words, use the first three or four letters of a word to check spelling and meaning in a dictionary and thesaurus.

**Writing - handwriting** - Write legibly, fluently and with increasing speed by deciding whether to join specific letters and by choosing writing styles relevant to the demands of the task set.

**Writing - composition** - Plan their writing by: identifying the audience for and purpose of the writing, using other similar writing as models for their own, noting and developing initial ideas, drawing on reading and research where necessary. In writing narratives, consider how authors have developed characters and settings, selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning, describing settings, characters and atmosphere and integrating dialogue, 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. Evaluate and edit by: assessing the effectiveness of their own writing, distinguishing between the language of speech and writing, proof-read for spelling and punctuation errors, perform their own compositions using intonation, volume, and movement so that meaning is clear.

**Writing - vocabulary, grammar and punctuation** - Recognise vocabulary and structures that are appropriate for formal speech and writing, use passive verbs to affect the presentation of information in a sentence, use the perfect form of verbs to mark relationships of time and cause, use expanded noun phrases to convey complicated information concisely, use adverbs to indicate degrees of possibility, use relative clauses beginning with who, which, where, when, whose, that or with an implied relative pronoun. Indicate grammatical and other features by: using commas to clarify meaning, using hyphens, brackets, dashes or commas to indicate parenthesis, using semi-colons, colons or dashes to mark boundaries between clauses, using a colon to introduce a list, punctuating bullet points consistently.

### Termly mathematics

**Number - addition, subtraction, multiplication, division number and place value** - Multiply and divide multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication and long division, interpret remainders as whole number remainders, fractions, or by rounding; perform mental calculations with mixed operations and large numbers; identify common factors, common multiples and prime numbers; use their knowledge of the order of operations to carry out calculations involving the four operations; solve addition and subtraction multi-step problems while deciding which operations and methods to use and why; solve problems involving all four operations; use estimation to check answers to calculations and determine an appropriate degree of accuracy.

**Number - fractions** - Use common factors to simplify fractions; use common multiples to express fractions in the same denomination; compare and order fractions, including fractions greater than 1; add and subtract fractions with different denominators; multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,  $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ ]; divide proper fractions by whole numbers [for example,  $\frac{1}{3} \div \frac{1}{2} = \frac{1}{6}$ ]; associate a fraction with division and calculate decimal fraction equivalents [for example,  $\frac{1}{8} = 0.375$ ]; 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; solve problems which require answers to be rounded to specified degrees of accuracy; recall and use equivalences between simple fractions, decimals and percentages.

**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; convert measurements of length, mass, volume and time from a smaller unit of measure to a larger unit; convert between miles and kilometres; recognise that shapes with the same areas can have different perimeters; 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 (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>)

**Geometry - properties of shape** - Draw 2-D shapes using given dimensions and angles; recognise, describe and build simple 3-D shapes, including nets; compare and classify geometric shapes based on their properties and find unknown angles in any triangles, quadrilaterals, and regular polygons; illustrate and name parts of circle, including radius, diameter and circumference and know that the diameter is twice the radius; recognise angles where they meet at a point, on a straight line, or are vertically opposite; describe position on a full co-ordinate grid; draw and translate simple shapes on a co-ordinate plane, and reflect them on vertical, horizontal and diagonal axes.

**Statistics** - Interpret and construct pie charts and line graphs and use these to solve problems; calculate and interpret the mean as an average.

## Year 6 curriculum overview - 2016/2017

### Autumn term

Residential trip to PGL.

Day trip to Kidzania for those children not going to PGL.

#### Theme - Workhouse Woes - Victorian Day workshop

Geography: Carry out a map comparison study between Victorian England and the present day, for example - how land has changed over time within our school's locality.

History: Investigate aspects of the local area that are affected by history, for example - Victorian influences on what we have today. Carry out a monarchy study of the life and times of Queen Victoria. Look at how schools have developed and changed with studies on particular individuals who influenced school life including Dr Barnardo and Lord Shaftesbury. Include crime and punishment.

Art: Research, plan and complete Pointillism paintings based on the work of Seurat.

DT: How should your puppets tell their story?

Literacy links: Recount - diary entry. Narrative - rags to riches.

**Vocabulary**: Queen Victoria, Prince Albert, reign, reigned, industrial revolution, Isambard Kingdom Brunel, chimney sweep, William Morris, maid, servant, cane, writing slate, workhouse, orphan, Charles Dickens, cotton mill, gentlemen, Dr Barnardo, Lord Shaftesbury, British Empire, factories, population, coal mines, slums, governess, parliament, ragged school, Education Act, scullery.

#### Theme - Sparks

Science: Electricity: construct simple series circuits, associate the brightness of a bulb or the volume of a buzzer with the number and voltage of cells used, compare and give reasons for variations in how components function and use recognised symbols when drawing a circuit diagram.

History: Research the work of Michael Faraday and his involvement in the distribution of electricity.

DT: What sort of light will work for you? Making more complex switches and circuits.

Eco: Research alternative and long lasting energy sources.

Literacy links: Instructions

**Vocabulary**: electricity, Volts, circuit, conductor, insulator, symbol, circuit diagram, component, voltage, series circuit, cell, bulb, buzzer, switch, motor.

#### Theme - Natural Disasters

Science: Properties and changes of materials: use knowledge of solids, liquids and gases to decide how mixtures might be separated, give reasons for the particular uses of everyday materials and explore reversible changes.

Geography: Use maps and atlases to locate countries. Describe and understand key aspects of rivers, mountains, earthquakes, volcanoes, tornadoes, avalanches, tsunamis, cyclones and fires, linking to types of settlement and land use.

History: Research how land use, settlements and trading have changed following the occurrence of natural disasters.

Art: Study the work of Stephanie Peters and create own 'disaster' painting.

Eco: Research whether climate change and pollution are contributory factors to natural disasters.

Literacy links: Recount - newspaper report. Explanatory text.

**Vocabulary**: accelerate, avalanche, bushfire, climate, collapse, cyclone, deadly, earthquake, earth's crust, emergency, eruption, faults, flooding, flood barrier, floodplain, forecast, lightning, meander, monsoon, mountain, natural disaster, pollution, Radar instruments, recovery, rescue, river, satellites, saturated, seismic waves, tornado, tremor, tsunami, vegetation, volcano, weather, material, solid, liquid, gas, separate, filter, sieve, evaporate, melt, dissolve, examples of materials, reversible changes, irreversible changes.

#### Discrete subjects

**Computing**: We are game developers where we design and create a game.

**RE**: Journey of Life; Harvest and Christmas.

**PSHE&C**: New beginnings; Getting on and Falling out.

**PE**: Gym - creating and performing sequences that show variation in level, speed and direction; Tag Rugby; Dance; Swimming (Autumn 2).

**Spanish**: Introduction to Spanish: the Spanish-speaking world, and Spanish Phonics (sounds). Greetings, numbers 1-31, pencil case items, verbs *to have* and *to be*, songs, 7 days of the week, 4 months of the year. Tongue twisters, Christmas in Spain. Christmas vocabulary. Singing Feliz Cumpleaños, (Happy Birthday). All months of the year.

**Music**: Development of rhythms skills. Continuation of ukulele, developed from year 5. Consolidation of chords and strumming techniques learnt to date. Some composition using chosen chord progressions, writing own lyrics from poetry.

## Year 6 curriculum overview - 2016/2017

### Spring term

#### **Theme - The Descent of Man - visit to the Natural History Museum**

**Science:** Evolution and Inheritance: recognise that living things have changed over time and that fossils provide information about living things that inhabited Earth millions of years ago, recognise that living things produce offspring of the same kind although they are not identical to their parents; appreciate that variation in offspring over time can make animals more or less able to survive in particular environments. Identify that adaptation may lead to evolution. Find out about the work of palaeontologists such as Mary Anning.

**History:** Research and write about the work of Charlie Darwin with awareness to his theories.

**Art:** Study the work of Henry Moore. Create a sculpture of the human form using wire and mod roc.

**Literacy links:** Narrative - a fantasy story. Discursive - Macbeth.

**Vocabulary:** evolution, evolve, natural selection, survival, reproduction, offspring, parents, siblings, environment, variation, fossils, ammonites, species, belemnites, micrasters, genetics, inheritance, organism, palaeontologist, Mary Anning, Charles Darwin.

#### **Theme - Around the World**

**Science:** Animals and their habitats: group animals according to their characteristics, understand why and how animals have adapted to their habitat and understand and use food chains and keys. Living things and their habitats: describe how living things are classified into broad groups, understand that the broad groups can be subdivided, classify animals into commonly found invertebrates and vertebrates and research the life and work of Carl Linnaeus.

**Geography:** Using maps, atlases and globes, locate the continents of Antarctica, Africa and Asia, concentrating on their environmental regions, key physical and human characteristics, countries and major cities. Carry out a cross section study of Asia, Antarctica and Africa looking at: people, cultures, animals, food and other areas of interest to the children. Develop map skills by identifying the differences and similarities between the continents. Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle and time zones. Describe and understand key aspects of physical geography, including: climate zones, vegetation belts, rivers and mountains. Describe and understand key aspects of 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.

**Art:** Study an artist from another country and have a go at re-creating their style.

**DT:** Children plan, cook and eat their own stir fry based on Asian cuisine. Research Jamie Oliver's influence on school dinners.

**Music:** Listen to music from other cultures and re-create.

**Literacy links:** Non-chronological report - animals. Narrative - Flashback.

**Vocabulary:** classification, vertebrate, invertebrate, animal kingdom, plant kingdom, micro-organism, Amphibian, reptile, mammal, scales, feathers, flowering plant, non-flowering plant, microbe, germ, virus Decay, mould, reproduce, bacteria, nutrients, consumer, producer, predator, prey, food chain, key, habitats, life processes, Antarctica, Africa, Asia, physical, human, latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, Tropic of Cancer, Tropic of Capricorn, Arctic Circle, Antarctic Circle, climate zones, vegetation belt.

#### **Discrete subjects**

**Computing:** We are website developers where we are design and create our own website.

**RE:** Buddhism; Signs and Symbols.

**PSHE&C:** Going for Goals; Good to be me.

**PE:** Gym - jumping, landing and shape using apparatus; Hockey; Street Dance; Cricket.

**Spanish:** Classroom language, school subjects, animals and colours. The linguistic focus is gender, articles (definite & indefinite), plurals and adjectives.

Introduction to 'también' (also/too/as well), 'pero' (but). Songs. Members of the family. Writing a short email about myself.

**Music:** An in-depth look at different musical genres and musical history. Further development of ukulele skills, additional chords and finger picking techniques.

## Year 6 curriculum overview - 2016/2017

### Summer term

#### Theme - Newton's news

**Science:** Forces: identify the effects of air resistance, water resistance and friction, that act between moving surfaces, explore falling objects and raise questions about the effects of air resistance, explore forces that make things begin to move, go faster or slow down and explore the effects of friction on movement.

**History:** Look back at key scientists who investigated force and replicate original investigations to identify how their findings led us to understand more about force.

**Literacy links:** Voices in the Park - diary entry; non-chronological report; newspaper article and a leaflet / advert.

**Vocabulary:** force, mass, weight, Newtons, Newton meter, gravity, attracts, friction, resistance, upthrust, magnetism, air resistance, particles, surface area, push, pull, balance, grams, kilograms, gears, levers, pulleys, springs.

#### Theme - All about me!

*Getting the children ready for High School.*

**Science:** Animals, including humans: identify and name the main parts of the human circulatory system, recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function and describe the ways in which nutrients and water are transported within animals, including humans.

**Literacy links:** Narrative - Ghost story

**Vocabulary:** circulatory system, heart, blood, veins, arteries, pulse, clotting, diet, balanced diet, vitamins, minerals, proteins, carbohydrates, sugars, fats, drugs, caffeine, nicotine, alcohol, lifestyle, healthy, peer pressure, change, uncertainty, abuse, attitude, bystander, bully, challenge, complaint, cyber bullying, isolated, memories, psychological, tolerance, verbal abuse, victim.

#### Theme - Local history study

**Geography:** 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. Compare the local area with the rest of the UK with regards to: the environment, living conditions, types of work, social time and education. Identify how the landscape of the local area has changed over time.

**History:** Complete a study of the local area looking at how it was affected by WWII and how this is now reflected in our locality.

**Art:** Develop sketching skills by completing a comparative piece of work based on the landscape of the local area.

**Literacy links:** Continue narrative - ghost story; Poetry - reading and writing war poems.

**Vocabulary:** fieldwork, human features, physical features, environment, living conditions, education, landscape, locality, St Helier, Nonsuch Mansion, evacuees, Anderson shelter, Morrison shelter, rationing, air raids, bombing, Blitz, evacuation, D-Day, liberation, Winston Churchill, blackout, sirens.

End of term trip to Chessington World of Adventures to celebrate moving on to high school.

#### Discrete subjects

**Computing:** We are marketers where we are creating and editing an advert for our website.

**RE:** Sikhism; Faith and justice.

**PSHE&C:** Relationships; Changes

**PE:** Gym - push, pull and travelling; Athletics; Volleyball; Rounders; Tennis - working on organising the game and keeping the game going.

**DT:** Design, plan and make a bag using different fabric shapes and joining techniques.

**Spanish:** To learn food nouns from the Hungry Caterpillar story (basic items of food, fruit and drinks). Ordering food from a café in Spain and learning about Spanish foods. Individual projects on a Spanish-speaking country. Writing a holiday postcard.

**Music:** Ukulele performance practice and repertoire consolidation.