

Year 4 curriculum overview - 2016/2017

Termly literacy
<p>Reading - word reading - apply knowledge of root words, prefixes and suffixes to read aloud. Understand the meaning of new words. Read words that do not follow usual spelling patterns, noting the unusual correspondence between spelling and sound. Develop pupils' vocabulary through encouraging the use of thesauruses.</p>
<p>Reading - comprehension - listen to and discuss a wide range of texts. Read books that are structured in different ways. Read for a range of purposes. Increase familiarity with a wide range of books and retell some of these orally. Encourage pupils to recognise themes in what they have read, such as the triumph of good over evil or the use of magical devices in fairy stories and folk tales. Discuss words and phrases that capture the reader's interest and imagination. Prepare poems and play scripts to read aloud and to perform, showing understanding through intonation and action.</p>
<p>Writing - spelling - use a variety of prefixes and suffixes to understand how to change the meaning of words. Spell homophones. Place the possessive apostrophe accurately in words with regular plurals and in words with irregular plurals.</p>
<p>Writing - handwriting - use diagonal and horizontal strokes to join letters and increase the legibility, consistency and quality of handwriting. Ensure that the downward strokes of letters are parallel and that lines of writing are spaced sufficiently throughout their work.</p>
<p>Writing - composition - plan, draft and write compositions. Evaluate and edit writing. Proof read for spelling and punctuation errors. Read aloud own writing using appropriate intonation, controlling the tone and volume so that the meaning is clear. Pupils are to use simple organisational devices such as headings, subheadings and paragraphs in their writing.</p>
<p>Writing - vocabulary, grammar and punctuation - extend the range of sentences with more than one clause by using a wider range of conjunctions. Use the present perfect form of verbs in contrast to the past tense. Choose nouns or pronouns appropriately for clarity and cohesion and to avoid repetition. Use conjunctions, adverbs and prepositions to express time and cause. Use fronted adverbials. Use commas after fronted adverbials. Use and punctuate direct speech. Use headings and sub-headings to aid presentation and understand. Use all the above terminology accurately and appropriately.</p>
Termly mathematics
<p>Number - number and place value - count in multiples of 6, 7, 9, 25 and 1000. Find 1000 more or less than a given number. Count backwards through 0 to include negative numbers. Recognise the place value of each digit in a four digit number. Order and compare numbers beyond 1000. Identify and estimate numbers. Round numbers to the nearest 10, 100 or 1000. Read Roman numerals to 100 (I to C).</p>
<p>Number - addition and subtraction - add and subtract numbers with up to four digits using the formal written methods. Estimate and use inverse operations to check answers. Solve addition and subtraction 2 step problems, deciding which operations and methods to use and why.</p>
<p>Number - multiplication and division - know and use multiplication and division facts up to 12×12. Use place value, known and derived number facts to multiply and divide. Mentally multiply together three numbers. Recognise and use factor pairs in mental calculations. Multiply 2 and 3 digit numbers by a 1 digit number using a formal written layout. Solve problems involving multiplication and adding.</p>
<p>Number - fractions - recognise and show families of common equivalent fractions. Count up and down in hundredths. Solve problems to calculate quantities. Add and subtract fractions with the same denominator. Recognise and write decimal equivalents. Round decimals to one decimal place. Solve simple measures and money problems involving fractions and decimals to 2 decimal places.</p>
<p>Measurement - convert between different units of measure. Measure and calculate the area and perimeter of a rectilinear figure. Estimate, compare and calculate different measures, involving money in pounds and pence. Read, write and convert time between analogue and digital clocks. Solve problems involving converting time intervals ranging from years to seconds.</p>
<p>Geometry - properties of shape - compare and classify geometric shapes including quadrilaterals and triangles. Identify and compare acute and obtuse angles. Identify lines of symmetry in 2D shapes, presented in different orientations.</p>
<p>Statistics - interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in charts, pictograms, tables and other graphs.</p>

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Autumn term

Theme - Tomb Raiders - visit to The Horniman Museum

Geography: Use maps and atlases to locate Ancient Egypt and describe the geographical features; research types of settlements and why people choose to settle there.

History: Place the Ancient Egyptians on a timeline; understand where and when the Ancient Egyptians appeared; conduct an in-depth study of the Ancient Egyptians, focusing on their day to day life and their achievements as an early civilisation.

Art: Sculpt an amulet out of clay.

Literacy links: Read and write stories with historical settings and diaries (recount).

Vocabulary: crops, civilization, chronological order, mummification, pharaoh, pyramids, hieroglyphics, canopic jars, scarab beetle, sarcophagus, Egypt, sphinx, Tutankhamen, slavery, tombs, afterlife, religion, artefacts, gods, goddesses, Ra, amulet, harvest, River Nile, Cairo, Valley of Kings, papyrus.

Theme - Bright Sparks

Science: Electricity - identify common appliances that run on electricity; construct a simple series circuit; investigate a variety of components in a simple series circuit; recognise some common conductors and insulators.

Literacy links: Read and write instructional texts

Vocabulary: electric, electrical, electricity, power, appliances, series circuit, battery, bulb, bulb holder, buzzer, motor, crocodile clip, leads, wire, switch, break, bright, brighter, brightness, dim, duller, slow, fast, quiet, loud, conductor, insulator, light, sound, movement, heat, open, close, current, battery, chemical energy, cell, loop.

Theme - The Circle of Life

Science: Living things and their habitats - research famous scientist Beatrix Potter; explore examples of human impact on the environment; recognise that environments can change; sort vertebrate and invertebrate animals; recognise that living things can be grouped; identify how habitats change throughout the year.

Geography: Use fieldwork to observe, measure and record physical features in local area; gain an understanding about physical geography.

DT: Will this story surprise you? Using levers and linkages to make a pop-up book.

Eco-Schools: Explore and understand different environments for plant growth.

Literacy links: Read and write explanation texts.

Vocabulary: key, environment, human impact, negative, population, development, deforestation, nature reserves, habitat, micro-habitat, pond, meadow, log pile, woodland, river, lake, beach, cliff, organism, consumer, producer, predator, prey, food chain, deciduous, evergreen, roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs, twigs, vertebrates, invertebrates, classify, growth, physical, features, growth.

Theme - Material World

Science: States of matter - understand evaporation and condensation; explore and observe a variety of everyday materials and develop simple descriptions of states of matter; compare and group materials together; investigate water in its different states of matter.

Art and Eco-Schools: Produce art work to promote an 'Anti-litter' campaign.

Music: Use a variety of everyday materials to construct and compose a song; listen and recall sounds.

Literacy links: Continue to read and write explanation texts. Read and write rhyming poetry.

Vocabulary: material, state, solid, types of solids eg) rock and metal, liquid, types of liquids eg) juice and petrol, gas, types of gas eg) hydrogen and carbon dioxide, room temperature, pressure, melting, condensation, evaporation, solidifying, freezing, water cycle, water vapour, steam, heating, cooling.

Discrete subjects

Computing: We are Software Developers - developing a simple educational game; We are Toy Makers - creating an interactive toy.

RE: Hinduism - key people, places and festivals. Harvest; Christmas charity work.

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

PE: Gym - create and perform fluent sequences on the floor and apparatus; Tag Rugby; Dance; Volleyball.

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.

Music: Whole class instrument tuition.

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Spring term

Theme - I'm Alive!

Science: *Animals, including humans* - construct and interpret a variety of food chains, identifying producers, predators and prey; describe and explore simple functions of the basic parts of the digestive system; identify the different types of teeth in humans and their functions.

Music: Create a composition using the human body.

Literacy links: Read and write adventure stories.

Vocabulary: skeleton, bones, muscle, skull, joint, backbone, vertebrae, pelvis, shin-bone, ankle, toe joints, exoskeleton, internal, external, fibula, tibia, digestion, stomach, small intestine, large intestine, kidney, liver, particles, saliva, glands, gallbladder, incisors, canines, premolars, molars, teeth, enamel, dentine, nerves, crown, cement.

Theme - The Circle of Life

Science: *Living things and their habitats* - explore examples of human impact on the environment; recognise that environments can change; sort vertebrate and invertebrate animals; recognise that living things can be grouped; identify how habitats change throughout the year.

Geography: Use fieldwork to observe, measure and record physical features in the local area; gain an understanding about physical geography.

Eco-Schools: Explore and understand different environments for plant growth.

Literacy links: Read and write performance poetry.

Vocabulary: key, environment, human impact, negative, population, development, deforestation, nature reserves, habitat, micro-habitat, pond, meadow, log pile, woodland, river, lake, beach, cliff, organism, consumer, producer, predator, prey, food chain, deciduous, evergreen, roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs, twigs, vertebrates, invertebrates, classify, growth, physical, features, growth.

Theme - Around the World in 42 Days!

Science: *Living things and their habitats* - explore how changes have affected environments throughout the world; identify a variety of plants.

Geography: Identify continents; use maps and atlases to locate countries within Europe; compare a region in the UK with locations in Europe.

Art: Research Impressionist painters and create own painting in the same style working on colour mixing.

DT: What shape will your pastry be?

Music: Learn about the history of music; understand how national anthems have evolved.

Eco-Schools: Learn about global citizenship.

Literacy links: Read and write stories from other cultures and instructions.

Vocabulary: country, continent, capital city, Europe, North America, South American, Australasia, Africa, Asia, Antarctica, Great Britain, impressionism, anthem, citizenship, environment, survival, climate, temperature, deforestation, prevention, species, pollution, reproduction, sensitivity, nutrition, excretion, respiration, growth, survival, climate.

Discrete subjects

Computing: We are Musicians - producing digital music; We are HTML Editors - editing and writing html.

RE: Hinduism - writings, approaches to life. Christianity - approaches to life. Easter - Palm Sunday and Holy Week. Easter experience trip.

PSHE&C: Going for goals; It's good to be me!

PE: Gym - jumping, landing and shape; Rounders; Swimming.

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. Singing Feliz Cumpleaños, (Happy Birthday). 3 new months of the year.

Music: Whole class instrument tuition.

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Summer term

Theme - Dig it Up! - Saxon Workshop

Geography: Use maps to locate and describe physical features; investigate different types of settlements.

History: Understand Britain's settlement by the Anglo Saxons; investigate Anglo-Saxon invasions, settlements and kingdoms; place names and village life; research Anglo-Saxon art and culture; investigate the changes in crime and punishment during Anglo-Saxon times.

Art: Sketch Celtic symbols.

Literacy links: Learn about a variety of myths and legends, read and write newspaper articles.

Vocabulary: invasions, Anglo-Saxons, settlements, Sutton Hoo, Christianity, archaeologists, armour, Battle of Hastings, century, pagans, Northumbria, Mercia, Wessex, Kent, Anglia, Angles, Jutes, Saxons, culture, William the Conqueror, Harold II, King Alfred the Great, Normans, burials.

Theme - Feel the Force

Science: *Forces and Magnets* - compare how things move on different surfaces; notice that some forces need contact between 2 objects, but magnetic forces can act at a distance; observe how magnets attract and repel each other; compare and group together a variety of everyday materials according to their properties.

Geography: Learn the 8 points of a compass.

Literacy links: Read and write play scripts (not linked to theme).

Vocabulary: friction, magnet, force, compass, magnetic, magnetic field, force, attract, repel, compass, poles, classify, properties, rigid, flexible, fragile, tough, north pole, south pole, non-magnetic, metal, iron, copper, aluminium, steel, brass, force, strength.

Theme - The Circle of Life

Science: *Living things and their habitats* - explore examples of human impact on the environment; recognise that environments can change; sort vertebrate and invertebrate animals; recognise that living things can be grouped; identify how habitats change throughout the year.

Geography: Use fieldwork to observe, measure and record physical features in the local area; gain an understanding about physical geography.

Eco-Schools: Explore and understand different environments for plant growth.

Literacy links: Read and write non-chronological reports.

Vocabulary: key, environment, human impact, negative, population, development, deforestation, nature reserves, habitat, micro-habitat, pond, meadow, log pile, woodland, river, lake, beach, cliff, organism, consumer, producer, predator, prey, food chain, deciduous, evergreen, roots, branch, trunk, stalk, leaf, flower, petal, seeds, bulbs, twigs, vertebrates, invertebrates, classify, growth, physical, features, growth.

Theme - Off With Her Head! - visit to Hampton Court Palace

Science: Research a famous scientist - Leonardo Di Vinci

Geography: Investigate different types of settlements in Britain; use fieldwork to observe, measure and record the human and physical features of the local area.

History: Research the Tudor period: place the Tudors on a timeline; create a Tudor timeline; research facts about Henry VIII; identify facts about Henry VIII's wives and children; investigate Tudor food; identify the differences between the poor and rich during Tudor times; identify key facts about Tudor exploration; learn about The War of the Roses. Understand how knowledge of the past is constructed from a range of sources.

Art: Research Tudor painters such as Hans Holbein and create a group sketch of Henry VIII.

Literacy links: Read and write stories with historical settings and persuasive letters.

Vocabulary: alliance, Henry VIII, Anne Boleyn, Anne of Cleves, Catherine Aragon, catholic, court, courtier, Jane Seymour, Katherine Parr, Kathryn Howard, monarch, state, scientist, investigate, settlements, observe, measure, record, sources, self-portrait, musician, Thomas Tallis, Leonardo Di Vinci, Hans Holbein, Greensleeves.

Discrete subjects

Computing: We are co-authors - producing a wiki; We are meteorologists - recording and analysing weather data.

RE: Christianity - Ascension and Pentecost. All religions - the importance of prayer.

PSHE&C: Relationships; Changes.

PE: Gym - create and perform sequences on a variety of apparatus; Athletics; Street Dance; Cricket.

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. All months of the year. Individual projects on a Spanish-speaking country.

Music: Whole class instrument tuition.

DT: Design and make simple alarms using circuits and switches.