



The Core Knowledge Sequence UK

English Language and Literature: Year 3

I. LISTENING AND SPEAKING

Teachers: Traditional English language instruction has typically accorded little, if any, attention to the ongoing development of children's listening and speaking ability. This failure to focus on the development of oral language in English Language instruction has been a serious oversight. Literacy, the ability to read and write written language, is highly correlated with pupils' oral language proficiency, and the ability to understand a text read aloud is a prerequisite for making sense of the same text in printed form. It is therefore essential that children build listening and speaking competency while also developing reading and writing skills.

A. CLASSROOM DISCUSSION

- Maintain attention and actively participate in age-appropriate discussions about a variety of topics, ideas and texts, in both small and large group settings.
- Speak clearly with volume appropriate to the setting.
- Use agreed-upon rules for group discussions.
 - For example: look at and listen to the speaker, raise hand to speak, take turns, say 'excuse me' or 'please,' etc.
- Ask closed and open questions to clarify conversations, directions, exercises and/or classroom routines.
- Carry on and participate in a conversation over at least six turns, staying on a topic, initiating comments or responding to a partner's comments, with either an adult or another child of the same age.
- Participate in a conversation or group discussion by making reference to, or building upon, a comment made by the other person.
- Identify and express physical sensations, mental states and emotions of self and others.
- Understand and use language to express spatial and temporal relationships.
 - For example: *up, down, first, last, before, after*, etc.
- Understand and use narrative language to describe people, places, things, locations, events, actions.
- Understand and use common sayings and phrases such as 'Don't judge a book by its cover' and 'Better late than never'.
- Recognise and discuss body language; 'read the signs'.

B. PRESENTATION OF IDEAS AND INFORMATION

- Follow multi-step, oral directions.
- Give simple directions.
- Provide simple explanations.
- Recite a nursery rhyme, poem or song independently, using appropriate eye contact, volume and clear enunciation.
- Give oral presentations about personal experiences, topics of interest, stories and summaries of factual information that have been presented orally, visually or through multimedia, using appropriate eye contact, volume and clear enunciation.

C. COMPREHENSION AND DISCUSSION OF READ-ALOUDS: ALL TEXTS

Teachers: Written text makes use of richer vocabulary and more complex syntax than conversational language. It is important that young children be exposed not only to the language of everyday conversation

but also to the richer and more formal language of books. This can be done by frequently reading aloud. Helping young children develop the ability to listen to and understand written texts read aloud must be an integral part of any initiative designed to build literacy.

In Year 3, pupils are becoming increasingly skilled as independent readers. Nevertheless, research indicates that pupils' reading comprehension ability does not catch up to listening comprehension until they are in Key Stage 3. It is therefore still important to provide for children in Year 3 extensive reading experiences of both fiction and non-fiction texts.

Careful consideration should be given to the selection of books read aloud to ensure that the vocabulary and syntax presented is rich and complex, yet always accessible. Levelled texts will not provide the rich language experience desired during read-alouds and should only be used as a starting point with pupils for whom English is a second language.

Age-appropriate read-aloud selections for poetry and fiction are included below. Non-fiction read-alouds should be selected on the basis of the history, science, music and visual art topics identified for Year 3 pupils in the *Core Knowledge Sequence UK*, with emphasis on history and science selections. It is strongly recommended that daily read-alouds focus on a single topic over a sustained period of time—about two weeks—rather than intermingling read-alouds on a variety of subjects. Careful consideration should be given to the order in which non-fiction read-alouds are presented, to ensure that knowledge about a topic builds in a progressive and coherent way.

Following any reading, children should participate in rich, structured conversations with an adult in response to the written text that has been read aloud. In this way, they can begin to practise orally comparing, analysing and synthesising ideas in written text in much the same way as they will be expected to do as independent readers in later years.

- Listen to and understand a variety of texts read aloud, including fictional stories, fairy tales, fables, historical narratives, drama, informational text and poems.
- Distinguish the following genres of literature:
 - Fiction
 - Non-fiction
 - Reportage
 - Drama.
- Grasp specific details and key ideas
 - Describe illustrations.
 - Sequence four to six pictures illustrating events in a read-aloud.
 - Answer questions requiring literal recall and understanding of the details and/or facts of a read-aloud, i.e., who, what, where, when, why, etc.
 - Retell key details.
 - Summarise in one's own words selected parts of a read-aloud.
 - Ask questions to clarify information in a read-aloud.
 - Use narrative language to describe people, places, things, locations, events, actions, a scene or facts in read-aloud.
- Observe craft and structure
 - Understand and use words and phrases heard in read-alouds.
 - Compare and contrast similarities and differences within a single read-aloud or between two or more read-alouds.
 - Make personal connections to events or experiences in a read-aloud and/or make connections among several read-alouds.
- Integrate information and evaluate evidence. (Note: prior to listening to a read-aloud, teachers should identify what pupils know and have learned that may be related to the specific story or topic to be read aloud. Use pictures accompanying the read-aloud to check and support understanding of the read-aloud.)

- Make predictions prior to and during a read-aloud, based on the title, pictures, and/or text heard thus far and then compare the actual outcomes to the predictions.
- Answer questions that require making interpretations, forming judgements or giving opinions about what is heard in a read-aloud, including answering 'why' questions that require recognising cause/effect relationships.
- Interpret information that is presented orally and then ask additional questions to clarify information or the topic in the read-aloud.
- Identify who is telling a story or providing information in a text.

C. COMPREHENSION AND DISCUSSION OF READ-ALOUDS: FICTION, DRAMA, AND POETRY

- Retell a story, using narrative language to describe characters, setting(s) and the plot of the story in proper sequence.
- Compare and contrast characters from different stories.
- Describe characters in increasing depth by referring to dialogue and/or their actions in the story.
- Change some story events and provide a different story ending.
- Create and tell an original story, using narrative language to describe characters, setting(s) and the plot of the story in a proper sequence.
- Distinguish fantasy from realistic text in a story.
- Identify the moral or lesson of a fable, folktale or myth.
- Demonstrate understanding of literary language and use some of these terms in retelling stories or creating own stories:
 - Author
 - Illustrator
 - Characters
 - Setting
 - Plot
 - Dialogue
 - Personification
 - Simile
 - Metaphor
- Identify repetitions in phrases, refrains or sounds in poems or songs.
- Identify sensory language and how it is used to describe people, objects, places and events.
- Describe the use of rhyme, rhythm and sensory images used in poetry.
- Identify direct speech.

D. COMPREHENSION AND DISCUSSION OF READ-ALOUDS: NON-FICTION AND INFORMATIONAL TEXT

Teachers: Select non-fiction read-aloud topics from the Year 3 history, science, music, and visual arts topics, with emphasis on history and science.

- Generate questions and seek information from multiple sources to answer questions.
- Answer questions about the details of a non-fiction text, indicating which part of the text provided the information needed to answer specific questions.
- With assistance, categorise and organise facts and information within a given topic.
- With assistance, create and interpret timelines and lifelines related to read-alouds.
- Interpret information presented in diagrams, charts, graphs, etc.
- Distinguish read-alouds that describe events that happened long ago from those that describe contemporary or current events.

II. READING

A. READING COMPREHENSION: ALL TEXTS

Teachers: At the start of Year 3, pupils should be demonstrating ever-increasing code knowledge and fluency in their independent reading, allowing them to focus more intently on the meaning of what they are reading. This increased focus on reading comprehension is reflected in the number and complexity of the objectives below, as compared to earlier years. However, it is important to remember that listening comprehension still far exceeds reading comprehension and that children's ability to talk about what they have heard and/or read will exceed their ability to demonstrate that understanding in writing.

- Demonstrate understanding of text—the majority of which is decodable—after independent reading.
- Grasp specific details and key ideas
 - Sequence four to six pictures illustrating events from a text that has been read independently.
 - Answer questions requiring literal recall and understanding of the details and/or facts (i.e., who, what, where, when, why etc.) about a text that has been read independently.
 - Retell key details from a text that has been read independently.
 - Summarise in one's own words selected parts of the text.
 - Ask questions to clarify information about a text that has been read independently.
 - Use narrative language to describe people, places, things, locations, events, actions, a scene or facts from a text that has been read independently.
- Observe craft and structure
 - Identify basic features and what they mean, including title, author, table of contents, chapter headings and captions.
 - Understand and use words and phrases from a text that has been read independently.
 - Compare and contrast similarities and differences within a single text or between multiple texts read independently.
 - Make personal connections to events or experiences in a text that has been read independently and /or make connections among several texts that have been read independently.
- Integrate information and evaluate evidence. (Note: prior to reading, teachers should identify what pupils know and have learned that may be related to the specific story or topic to be read. Use pictures accompanying the written text to check and support understanding of the text.)
 - Make predictions prior to and while reading, based on the title, pictures and/or text heard thus far and then compare the actual outcomes to the predictions.
 - Answer questions that require making interpretations, forming judgements or giving opinions about what is heard in a read aloud, including answering 'why' questions that require recognising cause/effect relationships.
 - Interpret information that is read independently and then ask additional questions to clarify this information.
 - Identify who is telling a story or providing information in a text.
 - Identify temporal words that link and sequence events, i.e., *first, next, then*, etc.
 - Identify words that link ideas, i.e., *for example, also, in addition*.
 - Identify words that contrast ideas, i.e., *however, but*.

B. READING COMPREHENSION: FICTION, DRAMA AND POETRY

- Retell or dramatise a story, using narrative language to describe characters, setting(s) and the plot of the story in proper sequence.
- Compare and contrast characters from different stories.
- Describe characters in increasing depth by referring to or using dialogue and/or their actions in the story.
- Change some story events and provide a different story ending.
- Distinguish fantasy from realistic text in a story.
- Identify the moral or lesson of a fable, folktale or myth.

- Demonstrate understanding of literary language and use some of these terms in retelling stories or creating own stories:
 - Author
 - Illustrator
 - Characters
 - Setting
 - Plot
 - Dialogue
 - Personification
 - Simile
 - Metaphor
- Identify repetitions in phrases, refrains or sounds in poems or songs.
- Identify sensory language and how it is used to describe people, objects, places and events
- Describe the use of rhyme, rhythm and sensory images used in poetry.

C. READING COMPREHENSION: NON-FICTION AND INFORMATIONAL TEXT

- Generate questions and seek information from multiple sources to answer questions.
- Answer questions about the details of a non-fiction text, indicating which part of the text provided the information needed to answer specific questions.
- With assistance, categorise and organise facts and information within a given topic.
- With assistance, create and interpret timelines and lifelines related to text read independently.
- Interpret information presented in diagrams, charts, graphs, etc.
- Distinguish text that describes events that happened long ago from those that describe contemporary or current events.

III. WRITING

Teachers: Pupils develop ever-increasing code knowledge and fluency in reading during Year 3 and, as a result, most will also become increasingly comfortable and competent in expressing their thoughts and ideas in writing.

Teachers should, however, have age-appropriate expectations about what Year 3 pupil writing should resemble. Pupils' spelling skills will often lag behind the code knowledge they demonstrate in reading. It is reasonable to expect that the pupils will use the letter-sound correspondences they have learned thus far to set down plausible spellings for the sounds in the word.

For example, a pupil who writes *coller* for *collar*, *wate* for *wait* or *weight* has set down a plausible spelling for each sound in the word, using the code knowledge taught in this year. This should be seen as acceptable spelling for this stage of literacy acquisition. With continued writing practice, pupils should begin to include more dictionary-correct spellings for words that they read and write frequently. Dictionary correct spelling as the rule will be a realistic goal when pupils have learned more spellings, have had repeated writing practice opportunities and have learned how to use a dictionary to check spelling.

For Year 3 children, teachers should continue to model the use of a writing process, such as 'Plan-Draft-Edit', as pupils learn to write in various genres. It is important, though, not to dampen pupil enthusiasm for writing by rigidly insisting that *all* of a pupil's writing be edited over and over again to bring the text to 'publication' stage. In Year 3, teachers should achieve a sensible balance that encourages children to use their current level of skills when writing, as well as using simple editing criteria for review, without stifling creative expression.

A. WRITING TO REFLECT AUDIENCE, PURPOSE AND TASK

- Add details to writing.
- Begin to use tools, including technology, to plan, draft and edit writing.

B. CONDUCTING RESEARCH

- Gather information from experiences or provided text sources

C. NARRATIVE WRITING

- Write a familiar story that includes setting(s), character(s), dialogue and, if appropriate, several events, using temporal words and phrases to indicate the chronology of events.
- Write a personal narrative.
- Create a title and an ending that are relevant to the narrative.

D. INFORMATIVE/EXPLANATORY WRITING

- Write about a topic, including beginning and concluding sentences, facts and examples relevant to the topic and specific steps (if writing explanatory text).
- Group similar information into paragraphs.
- Use linking words such as *also*, *another*, *and*, etc. to connect ideas within a paragraph.

E. PERSUASIVE WRITING (OPINION)

- Express an opinion or point of view in writing, providing reasons and supporting details for preference or opinion.
- Use words to link opinions with reasons or supporting details, such as *because*, *also*, *another*.
- Create a title that is relevant to the topic or subject of the text.
- If writing about a specific book or read-aloud, refer to the content of the text.

IV. LANGUAGE CONVENTIONS**A. SPELLING**

- Apply basic spelling conventions.
- Use basic capitalisation and punctuation in sentences to convey meaning.
- Write phonemically plausible spellings for words using current knowledge, e.g. write *coller* for *collar*.
- Write words, phrases, and sentences from dictation, applying phonics knowledge.
- Alphabetise words to the second letter.
- Use a children's dictionary, with assistance, to check spelling and verify the meaning of words.
- Identify and use synonyms, antonyms, homophones and compound words.

B. PARTS OF SPEECH AND SENTENCE STRUCTURE

- Form sentences and paragraphs to communicate thoughts and ideas.
- Recognise, identify and use correct noun-pronoun agreement orally, in written text and in own writing.
- Recognise, identify and use common and proper nouns, orally, in written text and in own writing.
- Recognise, identify and use the articles *a* and *an* appropriately orally, in written text and in own writing.
- Recognise, identify and use selected regular and irregular plural nouns orally, in written text and in own writing.
- Recognise, identify and use selected regular and irregular past, present and future tense verbs orally, in written text and in own writing.
- Recognise, identify and use subject, object and possessive pronouns, orally, in written text and in own writing.
 - For example: *I, me, mine, you, yours, he, him, his, she, her, hers, it, its, they, them, theirs*
- Recognise, identify and use adjectives orally, in written text, and in own writing.
- Recognise, identify and use possessive pronouns that function as adjectives, orally, in written text and in own writing.
 - For example: *my, your, his, her, its, their*
- Recognise, identify and use adverbs orally, in written text and in own writing.

- Recognise, identify and use subjects and predicates, orally, in written text and in own writing.
 - For example (subject is in bold and predicate is in italics): **Anna** *scored a goal*.
- Recognise, identify and use statements, questions, and exclamations orally, in written text and in own writing.
- Recognise, identify and use complete simple and compound sentences.

C. CAPITALISATION AND PUNCTUATION

- Capitalise the first word in a sentence, the pronoun 'I', and proper nouns (e.g. names and places), months, days of the week, titles of people and addresses.
- Recognise, identify and use abbreviations with correct punctuation for the months, days of the week, titles of people and addresses.
- Identify and use end punctuation, including full stops, question marks and exclamation marks.
- Use commas appropriately in greetings and closings of letters, dates, items in a series and addresses.
- Write a simple friendly letter.
- Use apostrophes to create contractions and indicate possession, i.e., dog's paw.
- Use speech marks appropriately to designate direct speech.

V. POETRY

- Become familiar with the following works:
 - Bee! I'm Expecting You (Emily Dickinson)
 - Caterpillars (Aileen Fisher)
 - Conch Shell (Federico Garcia Lorca)
 - Discovery (Harry Behn)
 - Five Friendly Farmers (Anon)
 - How To Find My House (Roger Stevens)
 - Hurt No Living Thing (Christina Rossetti)
 - The Answer (Allan Ahlberg)
 - The Night Before Christmas (Clement Clarke Moore)
 - On the Ning Nang Nong (Spike Milligan)
 - Rickety Train Ride (Tony Mitton)
 - Sing a Song of Sixpence (traditional)
 - Something Told the Wild Geese (Rachel Field)
 - There Is a Young Lady, Whose Nose (Edward Lear)
 - There Was an Old Man with a Beard (Edward Lear)

VI. FICTION

Teachers: The titles listed below are available in a variety of editions, including both adaptations for novice readers and others that lend themselves to reading aloud to children—for example, *Charlotte's Web* or 'How the Camel Got His Hump'. It is recommended that you provide a mixture of texts. Editions designed for beginning readers can help children practise decoding skills. Texts, which children may not be capable or reading on their own, can be understood when the words are read aloud and talked about with a helpful adult. Such active listening to vocabulary and syntax that goes beyond the limits of age-appropriate reading texts is an important part of developing an increasingly sophisticated verbal sense.

The titles below constitute a core of stories for Year 3. Expose children to as many more stories as possible, including classic picture books, books to be read aloud, etc. (In schools, teachers across the year groups should communicate their choices in order to avoid undue repetition.) Children should also be exposed to non-fiction prose—biographies, books on science and history and books on art and music—and they should be given opportunities to tell and write their own stories. We will also explore Ancient Greek myths and British tall tales.

A. STORIES

- Become familiar with the following works:
 - Beauty and the Beast (traditional)
 - A Christmas Carol (Charles Dickens)
 - The Emperor's New Clothes (Hans Christian Andersen)
 - The Fisherman and His Wife (Brothers Grimm)
 - How the Camel Got His Hump (a 'Just So' story by Rudyard Kipling)
 - The Magic Paintbrush (a Chinese folktale)
 - Please Look After this Bear (Michael Bond)
 - Selections from *Peter Pan* (James M. Barrie)
 - The Story of the Seventh Daughter (a folktale from Bengal)
 - Talk (a West African folktale)
 - The Tongue-Cut Sparrow (a folktale from Japan)

B. MYTHOLOGY OF ANCIENT GREECE

[Builds on World History and Geography from Year 2: The Ancient Greek Civilisation.]

- Become familiar with the following Gods of Ancient Greece (and Rome):
 - Zeus (Jupiter)
 - Hera (Juno)
 - Apollo (Apollo)
 - Artemis (Diana)
 - Poseidon (Neptune)
 - Aphrodite (Venus)
 - Demeter (Ceres)
 - Ares (Mars)
 - Hermes (Mercury)
 - Athena (Minerva)
 - Hephaestus (Vulcan)
 - Dionysus (Bacchus)
 - Hades (Pluto)
- Become familiar with Mount Olympus, the home of the gods.
- Become familiar with mythological creatures and characters:
 - Centaurs
 - Cerberus
 - Pegasus
 - Pan
- Become familiar with Greek Myths
 - Prometheus (how he brought fire from the gods to men)
 - Pandora's Box
 - Oedipus and the Sphinx
 - Theseus and the Minotaur
 - Daedalus and Icarus
 - Arachne the weaver
 - Swift-footed Atalanta
 - Demeter and Persephone
 - Hercules (Heracles) and the Labours of Hercules

C. BRITISH FOLK HEROES AND TALL TALES

[Builds on St George and King Arthur, which were introduced in Year 1.]

- Become familiar with the following folk heroes and tall tales
 - Albion and Brutus
 - Dick Whittington, Lord Mayor of London
 - King Arthur
 - The Sword Excalibur

- Guinevere
- Merlin and the Lady of the Lake
- Sir Lancelot
- Robin Hood

D. LITERARY TERMS

- Become familiar with the following terms:
 - Limerick
 - Myth
 - Tall tale

VII. SAYINGS AND PHRASES

Teachers: Every culture has phrases and proverbs that make no sense when carried over literally into another culture. For many children, this section may not be needed; they will have picked up these saying by hearing them at home and among friends. However, this section on sayings has been one of the categories most appreciated by teachers who work with children from home cultures that differ from British culture.

- Become familiar with the following sayings and phrases:
 - Back to the drawing board
 - Better late than never
 - Cold feet
 - Don't cry over spilt milk
 - Easier said than done
 - Eaten out of house and home
 - Get a taste of your own medicine
 - Get out of the wrong side of the bed
 - In hot water
 - Keep your fingers crossed
 - Practise what you preach
 - Turn over a new leaf
 - Two heads are better than one
 - Where there's a will there's a way
 - You can't teach an old dog new tricks



History and Geography: Year 3

GEOGRAPHY

I. THE LOCAL AREA/COMMUNITY

Teachers: Pupils should learn to distinguish between the built and the natural environment. They should learn to distinguish between different types of services available in the community and the functions of different buildings and land. They should learn to identify different features of the landscape (which may lie outside of larger urban areas).

Terms: region, community

- Observe aerial/satellite photographs of the local area.
 - Use these to identify settlements, physical features and points of interest.
 - Discuss why things are located where they are, for example local buildings and services (bank, post office, shops, garage)
 - Discuss land-use types: parks, housing, industry, roads, farms.
- Draw a map of the school grounds using basic symbols and a key.
 - Use the map and the eight points of the compass to navigate around the school: north, south, east, west, northeast, southeast, northwest and southwest [Cross-curricular connection with Mathematics Year 4].
- Use a simple coordinate grid to describe the location of objects and places on a map, using the eight points of the compass.
- Introduce scale: for example, fifty paces = 5 cm on a map.
- Identify different types of residence
 - Apartments, terraced housing, detached houses
- Understand features of the natural environment
 - Rivers, hills, coastline, vegetation, animals
- Discuss ways in which the natural environment is managed and changed by people (e.g. park, farming, reservoir, urban drainage).

II. WESTERN EUROPE

Terms: temperate climate, alpine climate, agriculture, industry, Romance language, Germanic language

A. FRANCE, GERMANY, THE NETHERLANDS (HOLLAND), BELGIUM, AUSTRIA,

SWITZERLAND Climate and ecosystem

- Humid temperate/broadleaf forest and alpine climate/ecosystem
- Landscape
 - Alps, central highlands, lowlands, Rivers (Rhine, Rhone, Seine, Danube), Dutch floodplains
- People and culture
 - Germanic and Romance
 - Protestant/Catholic Churches
 - Classical music
 - Mozart [Cross-curricular links with Music, Years 2, 3, 4 and 5]
 - Vivaldi [Cross-curricular link with Music, Year 3]
 - Beethoven [Cross-curricular links with Music, Years 3 and 6]
 - Famous artists
 - Vincent van Gogh [Cross-curricular links with Visual Arts, Years 1 and 2]
 - Claude Monet [Cross-curricular links with Visual Arts, Year 2]

- The European Union
 - Origins, members, trade, migration
 - European Parliament in Brussels
- Settlements
 - Paris, Lyon, Berlin, Munich, Vienna, Zurich, Amsterdam, Brussels
- Economic activity
 - Agriculture (cheese, wine, fruit and vegetables)
 - Industry (cars)
 - Services (tourism, restaurants, hotels)

III. SETTLEMENTS AND POPULATIONS

Terms: urban, rural, conurbation, hamlet

- Identify different types of settlement: hamlets, villages, towns, cities and conurbations.
- Distinguish between rural, urban and suburban areas.
- Know that green belts are used to control urban growth.
- Use a local map to identify the site and situation of local settlements.
 - Where are settlements found? In valleys, along coasts and at river crossings.
 - Why did people choose these locations? Access to water, farmland, wood or for defence.
- Examine population density
 - Distinguish between areas where people are dispersed (rural) and crowded (towns and cities).

IV. RIVERS AND BASINS

Terms: river source, tributary, river mouth, floodplain, irrigation, watershed, drainage basin, estuary

A. UNDERSTAND THE WATER CYCLE

- Evaporation from the sea/lakes, condensation, precipitation, run-off and groundwater
- Discuss the different paths that water takes.
- Discuss how urban areas modify the drainage of water.

B. RIVER BASINS

- Understand that a river basin is an area of land drained by a river and its tributaries.
- Identify features of a river basin: springs, mountain streams, channel, valley, floodplain, lakes, estuary, coastline
- Follow the course of a river from source to mouth while using a map.
 - Discuss differences between mountain streams and lowland meandering rivers.

C. IDENTIFY MAJOR RIVERS AND THEIR BASINS

- UK major rivers: Thames, Trent, Severn, Tyne, Ouse, Great Ouse, Wye, Tweed, Exe
- Europe: Volga, Danube, Rhine
- Asia: Ob, Yellow (Huang He), Yangtze (Chang Jiang), Ganges, Indus, Tigris, Euphrates
- Africa: Nile, Niger, Congo
- South America: Amazon, Parana, Orinoco
- North America: Mississippi, Missouri, Colorado, Rio Grande, Yukon, Mackenzie, Churchill
- Australia: Murray-Darling

V. GEOGRAPHY OF ASIA AND EARLY ASIAN CIVILISATIONS

Teachers: Pupils are introduced to Asia through the countries of India, China and Japan. They should learn where these countries are located and study their physical setting and culture.

- Learn that Asia is the largest continent, with the most populous countries in the world

- Himalayan mountain range includes some of the tallest mountains in the world. The tallest mountain is Mt. Everest.
- Locate the following countries:
 - China
 - India
 - Japan

WORLD HISTORY

I. INDIA

Teachers: Use the famous rivers in India to emphasise the importance of rivers for settlement and civilisation. Since religion is a shaping force in the story of civilisation, the *Core Knowledge Sequence UK* also introduces children to major world religions, beginning with a focus on geography and major symbols and figures. The purpose is not to explore matters of theology but to provide a basic vocabulary for understanding many events and ideas in history. The goal is to familiarise, not proselytise; to be descriptive, not prescriptive. The tone should be one of respect and balance: no religion should be disparaged by implying that it is a thing of the past.

A. INDUS RIVER AND GANGES RIVER

- Settlements occur especially along these rivers.

B. HINDUISM

- Belief in many gods.
- Followers are called Hindus.
- Become familiar with Hindu gods
 - Brahma, Vishnu, Shiva
- Become familiar with sacred Hindu books
 - Rig Veda
 - Ramayana, telling the story of Rama and Sita

C. BUDDHISM

- Become familiar with how Prince Siddhartha becomes Buddha, 'the Enlightened One'.
- Understand how Buddhism evolved from Hinduism in India and then spread through many countries in Asia.
- Become familiar with King Asoka (also spelled Ashoka).

II. CHINA

Teachers: Introduce children to Chinese geography and culture. Chinese civilisation has produced many important inventions and discoveries.

Terms: merchant

A. GEOGRAPHY

- Recognise the importance of the Yellow (Huang He) and Yangtze (Chang Jiang) Rivers.
- Revisit the topic of the Great Wall of China and understand its historic significance [Cross-curricular connection with World History and Geography: Year 1]

B. TEACHINGS OF CONFUCIUS

- Become familiar with the teachings of Confucius, for example: honour your ancestors.

C. CHINESE INVENTIONS

- Invention of paper

- Importance of silk

D. CHINESE HOLIDAYS

- Chinese New Year

III. JAPAN

Teachers: Familiarise children with Japanese geography and modern culture, as well as the operation of Japanese society under feudalism, while emphasising the importance of the regional family dynasties.

Terms: earthquake, monsoon, typhoon, tsunami, daimyo, shogun, samurai, bushido, chopsticks, origami, kimono

A. GEOGRAPHY

- Locate Japan relative to continental Asia.
 - Understand why Japan is sometimes called the 'land of the rising sun'.
- Understand that Japan is made up of four main islands: Hokkaido, Honshu (largest), Shikoku, Kyushu
- Identify important features
- Pacific Ocean, Sea of Japan, Mt. Fuji, Tokyo, The Pacific Rim
- Typhoons, earthquakes

B. CULTURE

- Recognise the Japanese flag
- Understand the significance of big, modern cities that are centers of industry and business.
- Become familiar with traditional Japanese culture
 - Traditional craft: origami
 - Traditional costume: kimono

C. FEUDAL JAPANESE HISTORY AND CULTURE

- Emperor as nominal leader, but real power in the hands of shoguns
- Samurai, code of Bushido
- Rigid class system in feudal Japanese society
- Japan closed to outsiders
- Religion
 - Buddhism: the four Noble Truths and the Eightfold Path, Nirvana
 - Shintoism: reverence for ancestors, reverence for nature, kami

IV. ANCIENT GREECE

Teachers: This ancient civilisation forms an important foundation of Western culture. Encourage children to see how the politics, philosophies and myths of this civilisation have had a huge impact, even today. Explain how the city-states of Ancient Greece provided the earliest examples of the ideas of citizenship and democracy. [Cross-curricular connections with Language and Literature: Year 3]

Terms: democracy, tyrant, philosopher, Olympic Games, Paralympic Games, Spartan

- Recognise important features in Ancient Greek geography
 - Mediterranean Sea, Aegean Sea, Crete
- Become familiar with Sparta and its warrior culture
- Understand the importance of Athens as a city-state
 - Athenian democracy
- Become familiar with the Persian Wars
 - Marathon and Thermopylae

- Recognise the origin of the Olympic Games in Ancient Greece.
- Become familiar with Ancient Greek religion
 - Worship of many gods and goddesses
 - Zeus, Poseidon, Hades, Athena, Hara, Apollo, Artemis, Aphrodite, Ares, Hermes, Hephaestus
- Identify great thinkers from Ancient Greece
 - Socrates, Plato, Aristotle
- Become familiar with Alexander the Great
 - Growth of Hellenistic influence
 - Gordian Knot

BRITISH HISTORY

I. THE RULE OF LAW AND MURDER IN THE CATHEDRAL

Teachers: Connect the reign of Henry II with earlier events covered in earlier stages of British History, particularly the period of Norman Britain [Cross-curricular connection with British History: Year 2]. Encourage children to see the importance of the legal developments in this period, and how it helped to form the modern legal system. Make connections between conflicts between the church and the government in this period, and later developments in this relationship.

A. HENRY II

- First of the Plantagenet Kings
- Henry II's legal and judicial reforms
 - Royal Magistrate Courts; Royal 'circuit' judges; extension of Royal influence in local, civil cases
 - Trial by jury; precedent for modern legal systems
 - Henry's conflict with the church over Thomas á Becket, the Archbishop of Canterbury, who challenged the King's authority
 - Murder of the Archbishop at Canterbury Cathedral

II. THE CRUSADES

Teachers: Use the period of the Crusades to demonstrate the importance of religion to people in Britain, Europe and the Middle East in this period, and how these violent conflicts were motivated by religious and by political considerations.

A. THE CRUSADES, RELIGIOUS CONFLICTS IN THE HOLY LAND

- Many Crusades from the 11th to 13th centuries
- The purpose of the Crusades was to gain control of the Holy Land – those sites in the Middle East associated with the narrative of the New Testament – from Muslims
- Third Crusade (1187-1192)
 - Richard I of England, known as Richard the Lionheart, left his brother John in charge of England while he went to the Holy Land. John is an unpopular ruler.

III. RESTRAINTS ON ROYAL POWER (1215-1265)

Teachers: The Magna Carta and de Montfort's parliament can be taught together as the first restrictions on the power of the monarch. Explain to students how the legacies of these events helped to shape and define the changing relationship between the people and the king, and how the influence of these events can be seen in later events in British history. [Builds on History and Geography: Year 1]

Terms: democracy, elected

A. MAGNA CARTA

- Richard I dies (1199)
- King John reigns
 - Dissatisfaction with King John because of unsuccessful foreign wars and his treatment of nobles
- Magna Carta was created by discontented barons, to be in effect in perpetuity
 - The right not to be imprisoned without lawful judgement of peers
 - Limits on the king's power to collect money
 - Initially ineffective and limited but has had long-term significance
 - Provides precedent to question royal prerogative
- King accepts the Magna Carta at the meeting at Runnymede on 15 June, 1215
 - King rejected the Charter immediately afterwards

B. DE MONTFORT'S PARLIAMENT: THE FIRST ELECTED PARLIAMENT IN EUROPE

- Simon de Montfort
 - Simon de Montfort led the barons in rebellion (1263)
 - King captured at the Battle of Lewes (1264); de Montfort constructs new system of government
- Each borough sent two elected representatives to parliament
 - First time to have elected representatives in parliament
 - Many barons felt de Montfort had gone too far and abandoned them
 - Battle of Evesham (1265): de Montfort ambushed and killed and his system of government was disbanded
- Long term significance
 - Precedent for inclusion of non-royals in politics
 - De Montfort's parliament was an antecedent of modern representative parliamentary democracy

IV. WARS OF THE ROSES AND HENRY VII

Teachers: The Wars of the Roses was a series of dynastic struggles that resulted in the stable Tudor dynasty, and Henry VII's governmental reforms. Use the story of the Princes in the Tower to help children see how historians try to understand what happened in the past, and how there are many things that are uncertain or unknown.

A. WARS OF THE ROSES

- Houses of Lancaster and York
 - Discontinuous conflict over succession (1455 and 1485)
- Battle of St Albans (1455)
 - Yorkist victory
- Yorkist Edward IV dies (1483)
 - Richard III seizes throne
- The Princes in the Tower
 - The Princes (Edward V and his brother Richard) have unknown fates; Richard III was one of the main suspects
 - Richard III was crowned king
- Battle of Bosworth Field (1485)
 - Henry Tudor (Lancastrian descendent) defeats Richard III
 - Married Elizabeth of York; united the two houses

V. THE REFORMATION

Teachers: Explain the Reformation as both a religious and a political development. Encourage children to think about the impacts of the reformation, and how it caused religious conflicts across Europe during subsequent centuries.

A. REFORMATION

- Martin Luther was professor of theology at Wittenberg
 - Martin Luther nailed his 95 theses to church door (1517)
- Protestantism
 - Personal relationship with God; bible reading; opposed papacy
- Legacy of the reformation
 - Increased literacy

B. THE ENGLISH REFORMATION

- William Tyndale's Bible (1525)
- Henry VIII (1509)
 - Fear of not producing a male heir
- Catherine of Aragon
 - Birth of Mary
 - Attempts at annulment
- Anne Boleyn
 - Birth of Elizabeth
 - Beheading
- Separation of the Church of England from the Roman Catholic Church
- Legislation against the clergy
 - Henry VIII becomes head of the Church in England

C. DISSOLUTION OF THE MONASTERIES**VI. RELIGIOUS CONFLICTS (1547-1558)**

Teachers: Encourage children to see how the intolerance and persecution of both Catholics and Protestants under successive monarchs entrenched religious views and identities, increased hostilities and politicised religious beliefs. These issues would be crucial in the 17th Century.

A. RELIGIOUS INSTABILITY AFTER DEATH OF HENRY VIII

- Edward VI (1547)
 - Christian symbols and art removed from churches
 - Thomas Cranmer's Book of Common Prayer (1549)

B. MARY I (1553): REVERSES THE MEASURES TO SPLIT FROM ROME

- Catholic Restoration
 - Repealed Edward's religious laws; returned papal jurisdiction
- Married Philip II of Spain
 - Failed to produce an heir; crown passed to sister Elizabeth
- Marian Persecutions; 'Bloody Mary'
 - Heresy Acts prosecute Protestants
 - Protestants burnt at the stake

VII. THE ELIZABETHAN ERA (1558-1603)

Teachers: The Elizabethan Era was one of apparent relative stability due to the Elizabethan Religious Settlement, ending the previous conflicts but confirming the state's religion as opposed to Catholicism. Focus on the social and cultural significance of this period, especially how developments in exploration led to a growth in trade and eventually colonisation, as well as the cultural significance of William Shakespeare.

Terms: privateering / privateer, circumnavigate (the globe), colony, tragedy, history (in theatre), comedy

A. ELIZABETH I (1558): FINAL TUDOR MONARCH

- Elizabethan Religious Settlement; uniting under moderate Protestant theology

- The Act of Supremacy (1559)
- Act of Uniformity (1558); new Book of Common Prayer.
- End of reformation; confirmation of Anglicanism as church of the state
- Scottish Presbyterianism- a stricter form of protestantism
 - Scottish parliament reject Catholicism (1560); John Knox

B. EARLY BRITISH NAVAL DOMINANCE

- Henry VIII created Royal Navy
- Strong Elizabethan Navy and privateers
- Spanish Armada
 - Philip II of Spain wanted to use the Spanish Armada to overthrow Elizabeth I.
 - English fireships attack the Spanish Armada, which was pursued around the British Isles.
 - Many ships from the Spanish Armada wrecked near Ireland due to storms.
- Sir Francis Drake
 - Circumnavigated the globe
 - Atlantic privateering
- Sir Walter Raleigh
 - Colony at Roanoke Island

C. CULTURE IN THE ELIZABETHAN ERA

- Christopher Marlowe, dramatist and poet who influenced William Shakespeare
- Shakespeare
 - Birthplace in Stratford-upon-Avon
 - The Globe Theatre in London
 - Publication of Shakespeare's plays

FEATURED GREAT EXPLORER

A. MARCO POLO



Visual Arts: Year 3

Teachers: In schools, lessons on the visual arts should illustrate important elements of making and appreciating art, and emphasize important artists, works of art, and artistic concepts. When appropriate, topics in the visual arts may be linked to topics in other disciplines. While the following guidelines specify a variety of artworks in different media and from various cultures, they are not intended to be comprehensive. Teachers are encouraged to build upon the core content and expose children to a wide range of art and artists, particularly those that you can either take the children to see, or they can access with their carers.

I. ELEMENTS OF ART: LINE, SYMMETRY AND FORM

Teachers: The generally recognised elements of art include line, shape, form, space, light, texture, and colour. In Year 3, continue to discuss qualities of line, shape, colour, and texture that children learned about in Years 1 and 2. Develop children's knowledge and understanding by considering line orientation, and begin to explain how to recognise and describe the more theoretical elements of symmetry and form.

A. LINE

- Recognise lines as horizontal, vertical, or diagonal.
- Observe the use of line in:
 - Paul Klee, *Was Fehlt ihm? (What's wrong with him?)*, 1930 (Fondation Beyeler, Switzerland)
 - Pablo Picasso, *Mother and Child*, 1922 (Baltimore Museum of Art)
 - Katsushika Hokusai, *The Great Wave off Kanagawa*, 1829-33 (British Museum, London)

B. FORM

- Explain that form, in the discussion of art, is a term useful for describing complex shapes, often organic rather than geometric, as well as three-dimensional as opposed to flat shapes: the 'form' of a human figure, for example, or the form of a tree.
- Help the children consider form in the works they have considered for their use of line (such as Picasso's *Mother and Child*), and help them find ways to describe form in these additional works:
 - George Stubbs, *Whistlejacket*, 1762 (National Gallery, London)
 - Vincent van Gogh, *Wheatfield with Cypress Trees*, 1889 (National Gallery, London)

C. SYMMETRY

- Recognise common objects and shapes (squares, faces, trees) as symmetrical (where a part of an image or object is reflected or balanced in another side), or not symmetrical.
- Observe the use of symmetry in:
 - Leonardo da Vinci, *The Last Supper*, 1495-98 (Refectory, Santa Maria delle Grazie, Milan)
 Additionally in:
 - Meindert Hobbema, *The Avenue at Middelharnis*, 1689 (National Gallery, London)

II. KINDS OF PICTURES: LANDSCAPE AND STILL LIFE

Teachers: When presenting the following works, ask the children to look before talking; then ask the children what they can see, what details they notice that help them read what they are looking at, what the picture makes them think of or feel and why. Go on to discuss lines, shapes, colours, textures, symmetry and form (as appropriate).

A. LANDSCAPE

- Recognise and discuss as landscapes (images of nature or the natural environment, from the Dutch word 'landschap'):
 - Jacob Ruisdael, *Landscape with Bentheim Castle*, 1653 (National Gallery of Ireland, Dublin)
 - John Constable, *Salisbury Cathedral from the Meadows*, 1831 (National Gallery, London)
 - Henri Rousseau, *Surprised! A Tiger in a Tropical Storm*, 1891 (National Gallery, London)

B. STILL LIFE

- Recognise and discuss the following as still lives (images of one or more inanimate objects):
 - Paul Cézanne, studies with fruit such as apples and/or oranges, for instance, *Still Life with Apples*, 1877-78 (Fitzwilliam Museum, Cambridge)

Additionally:

- Anon. (from Herculaneum, Italy), *Still Life with Peaches and a Glass*, AD 50 (Archaeological Museum, Naples) [Teachers: point out that we know that still life has been a popular art form since ancient times because works like this one have survived due to being long-lasting fresco murals.]

III. KINDS OF PICTURES: MYTHOLOGICAL PAINTINGS

[Cross-curricular links with Year 3 Language and Literature: Mythology of Ancient Greece]

- Understand that a mythological work of art depicts characters or a narrative from mythology. In western European painting these are generally from classical mythology.
- Recognise as images from classical mythology and identify the characters/setting/narrative according to
- The children's knowledge of the depicted myths from their language and literature studies:
 - Antonio del Pollaiuolo, *Apollo and Daphne*, c.1432-1498 (National Art Gallery, London)

Additionally:

- Frederic (Lord) Leighton, *The Return of Persephone to Demeter*, 1891 (Leeds City Art Gallery, Leeds)
- Pablo Picasso, *Minotaur and his Wife*, 1937 (British Museum, London)

IV. TYPES OF ART: ARCHITECTURE

[Cross-curricular links with World History]

- Understand architecture as the art of designing buildings.
- Understand symmetry and a line of symmetry as it applies to buildings; observe symmetry in the design of some buildings which are familiar to you and/or the children (you could look at your school, local houses, or focus on the Cathedrals studied previously).
- Noting line, shape, and special features (such as columns and domes), look at and consider the following structures in relation to World History:
 - The Parthenon (including the Parthenon Frieze or so-called Elgin Marbles', now at the British Museum, London) 440 BC (Acropolis, Athens, Greece)
 - Great Stupa, begun 3rd Century BC (Buddhist temple in Sanchi, Raigarh district, Madhya Pradesh, India).
 - Sir Christopher Wren, St Paul's Cathedral, 1675 (London)

Additionally:

- Inigo Jones, The Banqueting House, 1619-22 (Whitehall, London) [include Rubens's painted ceiling, with its references to James I, the Union of England and Scotland, and the Gunpowder Plot]
- Consider an example of modern architecture, assessing what is traditional and what is innovative, such as:
 - Frank Gehry, Guggenheim Museum, 1997, Bilbao, Spain
 - Eric Miralles, Scottish Parliament Building, 2004, Edinburgh, UK



Music: Year 3

Teachers: In schools, lessons on music should feature activities and works that illustrate important musical concepts and terms, and should introduce important composers and works. When appropriate, topics in music may be linked to topics in other disciplines.

The following guidelines focus on content, not performance skills, though many concepts are best learned through active practice (singing, clapping rhythms, playing instruments, etc.).




I. ELEMENTS OF MUSIC

A. ELEMENTS

- Through participation, become familiar with basic elements of music (rhythm, melody, harmony, form, timbre, etc.).
 - Recognise a steady beat, accents, and the downbeat; play a steady beat.
 - Move responsively to music (marching, walking, hopping, swaying, etc.).
 - Recognise short and long sounds.
 - Discriminate between fast and slow; gradually slowing down and getting faster.
 - Discriminate between differences in pitch: high and low.
 - Discriminate between loud and soft; gradually increasing and decreasing volume.
 - Understand that melody can move up and down.
 - Hum the melody while listening to music.
 - Echo short rhythms and melodic patterns.
 - Play simple rhythms and melodies.
 - Recognise like and unlike phrases.
 - Recognise timbre (tone colour).
 - Sing unaccompanied, accompanied, and in unison.
 - Recognise verse and refrain.
 - Recognise that musical notes have names.
 - Recognise a scale as a series of notes.
 - Sing the C major scale using 'do re mi' etc.

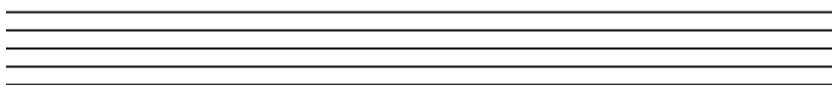
B. NOTATION

- Review the following notation:

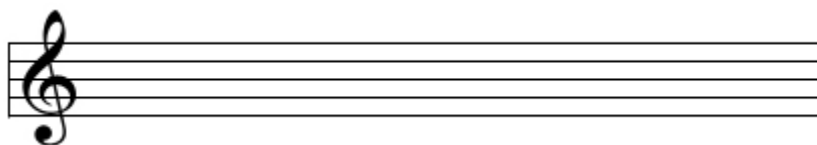
- Crotchet 
- Minim 
- Semi-breve 

- Understand the following notation:

- Stave



- Treble clef and names of lines and spaces in the treble clef



- Crotchet rest: silent for one beat



- Minim rest: silent for two beats



- Semibreve rest: silent for four beats



II. LISTENING AND UNDERSTANDING

Teachers: Expose children to a wide range of music, including children’s music, popular instrumental music, and music from various cultures. [In Year 4, students will take a closer look at the brass and woodwind families.]

A. MANY KINDS OF MUSIC

- Patriotic music
- Folk Music
- Classical Music

B. COMPOSERS AND THEIR MUSIC

Teachers: Provide brief, child-friendly biographical profiles of the following composers, and listen to representative works:

- Antonio Vivaldi, *The Four Seasons*
- Johann Sebastian Bach, *Minuet in G major* (collected by Bach in the *Anna Magdalena Notebook*); *Jesu, Joy of Man’s Desiring*; *Tocatta and Fugue in D minor*
- Ludwig van Beethoven, *Symphony No. 6 (‘Pastoral’)*: first movement and from final movement, ‘Thunderstorm’ to end of symphony

C. THE ORCHESTRA

- Review families of instruments: strings, brass, woodwinds, percussion.
- Become familiar with instruments in the string family—violin, viola, cello, double bass—and listen to
 - Camille Saint-Saëns, from *Carnival of the Animals*: ‘The Swan’ (cello) and ‘Elephants’ (double bass)
 - Antonio Vivaldi, *The Four Seasons* (see below, Composers and Their Music)
- Become familiar with instruments in the percussion family—for example, drums (timpani, snare), xylophone, wood block, maracas, cymbals, triangle, tambourine—and listen to Carlos Chavez, *Tocatta for percussion*, third movement.

[If you have recordings or other resources, also introduce African drumming and Latin American music with percussion.]

D. KEYBOARD INSTRUMENTS

- Recognise that the piano and organ are keyboard instruments, and listen to a variety of keyboard music, including:
 - Wolfgang Amadeus Mozart, *Rondo Alla Turca* from *Piano Sonata K. 331*
 - Ludwig van Beethoven, *Für Elise*
 - Felix Mendelssohn, *Spring Song* from *Songs without Words*

[See also below, Composers and Their Music, Bach, *Tocatta and Fugue in D minor* (organ).]

III. SONGS

- Bobby Shaftoe
- Clementine
- Do-Re-Mi (Richard Rodgers and Oscar Hammerstein II, for the musical *The Sound of Music*)
- The Happy Wanderer (words by Florenz Siegesmund, English translation by Antonia Ridge, music by Friedrich Wilhelm Möller)
- The Hippopotamus Song (also known for its chorus: Mud, Mud, Glorious Mud) (Michael Flanders and Donald Swann)
- Oranges and Lemons
- Who Killed Cock Robin?



Mathematics: Year 3

I. NUMBERS AND THE NUMBER SYSTEM

A. WHOLE NUMBERS

- Read and write numbers to at least 1000 in figures and words.
- Count on or back in single-digit steps or multiples of 10 from any given number.
- Count on or back in steps of 10, 50 or 100 from any given number.
- Recognise the place value of each digit in any three-digit number, and partition three-digit numbers into multiples of 100, 10 and 1.
- Compare numbers to at least 1000 using the $<$, $>$, and $=$ signs.
- Order a set of numbers to at least 1000.
- Round two-digit or three-digit numbers to the nearest 10 or 100.

B. FRACTIONS

- Recognise unit fractions such as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$ and $\frac{1}{10}$.
- Use diagrams to compare fractions and establish equivalents.
- Begin to recognise simple fractions that are several parts of a whole, e.g. $\frac{2}{3}$, $\frac{3}{4}$ or $\frac{7}{10}$, interpreting the denominator as the parts of a whole and the numerator as the number of parts.
- Identify pairs of fractions that total 1.
- Find unit fractions of shapes, numbers or quantities, e.g. $\frac{1}{5}$ of 20.

II. NUMBER OPERATIONS AND CALCULATIONS

A. ADDITION AND SUBTRACTION

- Recall sums and differences of multiples of 10.
- Recall all addition and subtraction facts for each number to 20.
- Know addition and subtraction 'fact families' to 20, e.g. $8 + 6 = 14$, $6 + 8 = 14$, $14 - 8 = 6$, $14 - 6 = 8$.
- Use known number facts and place value to mentally:
 - add or subtract a one-digit number to or from a two-digit number, e.g. $63 + 7$, $47 - 6$;
 - add a multiple of 10 or 100 to a one-, two- or three-digit number, e.g. $50 + 6$, $400 + 347$;
 - subtract a multiple of 10 from a two-digit or three-digit number, e.g. $428 - 80$;
 - subtract a multiple of 100 from a three-digit number, e.g. $639 - 500$;
 - add or subtract pairs of two-digit numbers, e.g. $35 + 68$, $74 - 46$.
- Use written methods to:
 - add or subtract a two-digit number to or from a three-digit number, e.g. $647 + 36$, $354 - 78$;
 - add or subtract pairs of three-digit numbers, e.g. $273 + 436$, $364 - 189$.

B. MULTIPLICATION AND DIVISION

- Understand and use the principles (but not the names) of the commutative, associative and distributive laws as they apply to multiplication:
 - example of commutative law: $6 \times 15 = 15 \times 6$
 - example of associative law: $6 \times 15 = 6 \times (5 \times 3) = (6 \times 5) \times 3 = 30 \times 3 = 90$
 - example of distributive law: $8 \times 17 = 8 \times (10 + 7) = (8 \times 10) + (8 \times 7) = 80 + 56 = 136$
- Recall multiplication facts for the 2, 3, 4, 5, 8 and 10 times-tables, and the corresponding division facts.
- Recognise multiples of 2, 5 or 10 up to 1000.
- Multiply one-digit and two-digit numbers by 0, 1, 10 or 100, and understand the effect.

- Solve simple division calculations involving remainders, rounding up or down depending on the context.
- Use informal written methods to multiply or divide a two-digit number by a one-digit number, e.g. 24×3 , $37 \div 5$.

C. MIXED OPERATIONS

- Use the +, −, \times , \div and = signs to record calculations, including symbols such as \square , \circ or \triangle to stand for an unknown number, e.g. $15 + \square = 47$, $28 \div \circ = 7$.
- Use knowledge of number operations and inverse relationships to estimate and check calculations.

III. MEASUREMENT

A. LENGTH, MASS, CAPACITY AND TEMPERATURE

- Recognise and use abbreviations for metric units of measure: km, m, cm, kg, g, l, ml, °C.
- Estimate, measure and record lengths, masses, capacities and temperatures using standard units (km, m, cm, kg, g, l, ml, °C).
- Know the relationship between kilometres and metres, metres and centimetres, kilograms and grams, litres and millilitres.
- Read, to the nearest division and half-division, scales that are numbered or partially numbered.

B. TIME

- Use a calendar to identify and record the date, day of the week, month and year.
- Compare duration of events and calculate time intervals.
- Read the time to 5 minutes on an analogue clock and 12-hour digital clock and understand the notation 8:25.
- Understand noon and midnight and distinguish time as am or pm.

C. MONEY

- Recognise relative values of all coins and notes.
- Begin to add and subtract amounts of money to find totals and give change, using £.p notation where appropriate.

IV. GEOMETRY

A. 2-D AND 3-D SHAPES

- Identify, visualise, describe, classify, draw and make 2-D shapes and 3-D solids.

B. POSITION, DIRECTION AND MOVEMENT

- Read and write the vocabulary of position, direction and movement.
- Identify lines as horizontal, vertical, diagonal, perpendicular and parallel.
- Describe and find the position of a square on a grid of squares with the rows and columns labelled.
- Recognise and use the four compass directions. [Cross-curricular connection with Year 1 Geography]
- Identify right angles in 2-D shapes and the environment.
- Recognise whether an angle is greater or smaller than a right angle.
- Recognise that a straight line is equivalent to two right angles.
- Use a set-square to draw right angles.

C. SYMMETRY

- Identify and draw lines of symmetry in simple shapes.
- Recognise shapes with no lines of symmetry.
- Draw the reflection of a shape or pattern in a mirror line along one side.

V. DATA

- Collect, process, represent, interpret and discuss data in a tally chart, frequency table, pictogram or bar chart.
- Read, interpret and represent data:
 - where symbols represent more than one unit, e.g. 2 or 5;
 - where scales have intervals of differing step size, e.g. axis labelled in 2s or 5s.
- Use Venn and Carroll diagrams to sort objects and data.

VI. PROBLEM SOLVING AND REASONING

- Identify and describe numerical and symbolic patterns and relationships.
- Solve mathematical problems and puzzles involving numbers or shapes.
- Solve one-step and two-step problems involving addition, subtraction, multiplication and division in the context of numbers or measurements, including money.



Science: Year 3

I. CYCLES IN NATURE

A. SEASONAL CYCLES

- The four seasons and Earth's orbit around the Sun [Review from Year 1]
- Seasons and life processes
 - Spring: sprouting, sap flow in plants, mating and hatching
 - Summer: growth
 - Fall: ripening, migration
 - Winter: plant dormancy, animal hibernation

B. LIFE CYCLES

- The life cycle: birth, growth, reproduction, death
- Reproduction in plants and animals
 - From seed to seed with a plant
 - From egg to egg with a chicken
 - From frog to frog
 - From butterfly to butterfly: metamorphosis (see below: insects)

C. THE WATER CYCLE

- Most of the Earth's surface is covered by water
- The water cycle
 - Evaporation and condensation
 - Water vapour in the air, humidity
 - Clouds: cirrus, cumulus, stratus
 - Precipitation, groundwater

II. INSECTS

[Cross-curricular links with Year 3 Language and Literature: Poetry]

- Insects can be helpful and harmful to people.
 - Helpful: pollination; products like honey, beeswax, and silk; eat harmful insects
 - Harmful: destroy crops, trees, wooden buildings, clothes; carry disease; bite or sting
- Distinguishing characteristics
 - Exoskeleton, chitin
 - Six legs and three body parts: head, thorax and abdomen
 - Most but not all insects have wings
- Life cycles: metamorphosis
 - Some insects look like miniature adults when born from eggs, and they moult to grow (for example: grasshopper, cricket)
 - Some insects go through distinct stages of egg, larva, pupa, adult (for example: butterflies, ants)
- Social Insects
 - Most insects live solitary lives, but some are social (for example: ants, honeybees, termites, wasps)
 - Ants: colonies
 - Honeybees: workers, drones, queen

III. THE HUMAN BODY: CELLS, SYSTEMS AND HEALTH

A. CELLS

- All living things are made up of cells, too small to be seen without a microscope.
 - Cells make up tissues.
 - Tissues make up organs.
 - Organs work in systems.

B. THE DIGESTIVE SYSTEM

Teachers: Explore with children what happens to the food we eat by studying body parts and functions involved in taking in food and getting rid of waste. Children should become familiar with the following:

- Salivary glands, taste buds
- Teeth: incisors, canines, premolars and molars
- Oesophagus, stomach, liver, small intestine, large intestine

C. TAKING CARE OF YOUR BODY: A HEALTHY DIET

- The 'food pyramid'
- Vitamins and minerals

IV. MAGNETISM

Teachers: Magnetism was introduced in Year 1. Review and introduce new topics in Year 3, with greater emphasis on experimentation.

- Magnetism demonstrates that there are forces we cannot see that act upon objects.
- Most magnets contain iron
- Lodestones: naturally occurring magnets
- Magnetic poles: north-seeking and south-seeking poles
- Magnetic field (strongest at the poles)
- Law of magnetic attraction: unlike poles attract, like poles repel.
- The Earth behaves as if it were a huge magnet: north and south magnetic poles (near, but not the same as, geographic North Pole and South Pole).
- Orienteering: use of a magnetised needle in a compass, which will always point to the north

V. SIMPLE MACHINES

Teachers: Examine with children how specific tools are made to perform specific jobs- for example, hammers, screwdrivers, pliers, etc. Through observation and experimentation, examine with children how simple machines help make work easier, and how they are applied and combined in familiar tools and machines.

A. SIMPLE MACHINES

- Lever
- Pulley
- Wheel and axle
 - Gears: wheels with teeth and notches
 - How gears work and familiar uses (for example, in bicycles)
- Inclined plane
- Wedge
- Screw

B. FRICTION, AND WAYS TO REDUCE FRICTION (LUBRICANTS, ROLLERS, ETC.)

VI. SCIENCE BIOGRAPHIES

- Archimedes (ancient Greek mathematician, physicist, engineer, inventor, and astronomer) [Cross-curricular link with History and Geography]
- Aristotle (Greek philosopher: wrote on physics, biology, logic, poetry, theatre, rhetoric, politics and ethics)
- Anton van Leeuwenhoek (invented the microscope)
- The Curie Family including Marie Curie (discovered radiation and two new elements)