

Earth and Space – Year 5

In this topic the children will be travelling to space, learning about the Solar System, the Planets, the Sun and the Moon. They will learn what causes day and night and why it isn't the same time here as it is in other parts of the world. What an adventure we will go on!

Science

I can describe the movement of the Earth, and other planets, relative to the Sun in the solar system.

I can describe the movement of the Moon relative to the Earth.

I can describe the Sun, Earth and Moon as approximately spherical bodies.

I can use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.

Art and Design

I can use sketch books to record my observations and use them to review and revisit ideas.

I can improve my mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay].



Design and Technology

I can generate, develop, model and communicate my ideas through discussion and sketches.

I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures

I can evaluate their ideas and products

Geography

Locational knowledge

I can name and locate geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns.

I can understand how some of these aspects have changed over time.

Place knowledge

I can understand geographical similarities and differences through the study of the physical geography of planets.

Human and physical geography

I can describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes, earthquakes and the water cycle.

Maths

I can read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.

I can count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.

I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.

I can round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000.

I can solve number problems and practical problems that involve all of the above.

I can read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.

I can add and subtract numbers mentally with increasingly large numbers.

I can add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).

I can use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

I can multiply and divide numbers mentally drawing upon known facts.

I can multiply and divide whole numbers by 10, 100 and 1,000.

I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.

I can recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3).

I can solve problems involving multiplication and division including

I can use my knowledge of factors and multiples, squares and cubes.

I can use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.

I can establish whether a number up to 100 is prime and recall prime numbers up to 19.

I can solve comparison, sum and difference problems using information presented in a line graph.

I can complete, read and interpret information in tables including timetables.

Reading

I can use my initial knowledge of root words, prefixes and suffixes both to read aloud and to understand the meaning of new words that I meet.

I can read and discuss a range of fiction, poetry, plays, non-fiction and reference books or textbooks.

I can read books that are structured for a range of purposes.

I can identify and discuss themes and conventions in and across a range of writing.

I can make comparisons within and across books.

I can read for understanding by checking that a text makes sense to me, discuss my understanding and explore the meaning of words in context.

I can ask questions to improve my understanding.

I can draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence.

I can make simple summaries of the main ideas drawn from more than one paragraph, identifying key details that support the main ideas.

I can identify how language, structure and presentation contribute to meaning.

I can discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.

I can distinguish between statements of fact and opinion.

I can retrieve record and present information from non-fiction.

I can participate in discussions about books that are read to me and those I can read for myself building on my own and others' ideas and challenging views courteously.

I can provide reasoned justifications for my views.

Writing

I can plan my writing by beginning to identify the audience for and purpose of the writing, often selecting the appropriate form and using other similar writing as models for my own.

I can plan my writing by beginning to note and develop initial ideas, drawing on reading and research where necessary.

I can draft and write by beginning to select appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning.

I can draft and write by beginning to use a range of devices to build cohesion within and across paragraphs.

I can draft and write by beginning to use some organisational and presentational devices to structure text and to guide the reader [for example, headings, and bullet points].

I can evaluate and edit by beginning to assess the effectiveness of my own and others' writing.

I can evaluate and edit by beginning to propose changes to vocabulary, grammar and punctuation to enhance writing.

I can evaluate and edit by beginning to use the correct tense throughout a piece of writing.

I can evaluate and edit by beginning to ensure the correct subject and verb agreement when using singular and plural, distinguishing between the languages of speech and writing and choosing the appropriate register.

I can proof-read for spelling and punctuation errors.

I can indicate grammatical and other features by using brackets, dashes or commas to indicate parenthesis.

I can use and understand the grammatical terminology in English accurately and appropriately in discussing my writing and reading.

I can develop my understanding of the concepts set out in English by using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun.