

Science

I can compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.

I can describe how to recover a substance from a solution.

I can use my knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.

I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.

I can demonstrate that dissolving, mixing and changes of state are reversible changes.

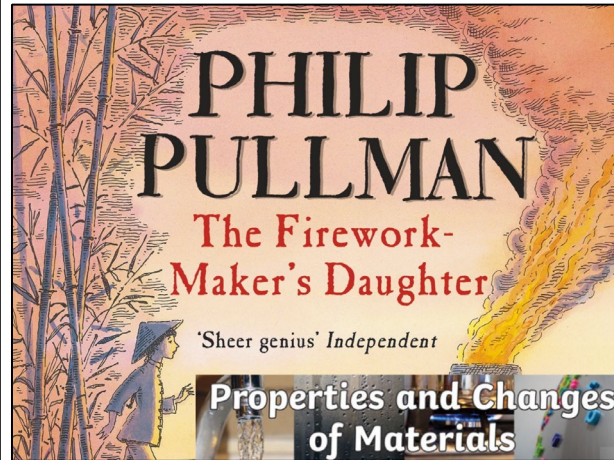
I can explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Art

I can create 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].

Year Five Autumn 1 Firework Maker's Daughter Properties and Changes of Materials



In this topic the children will follow Lila on her adventure to become a firework maker. The children will conduct many experiments as we look at solubility, reversible and irreversible change and different properties of materials.

Design and Technology

Design

I can generate, develop, model and communicate my ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

I can select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

Evaluate

I can investigate and analyse a range of existing products.
I can understand how key events and individuals in design and technology have helped shape the world.

Geography

Geographical skills and fieldwork
I can use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.

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 plan my writing by beginning to consider how authors have developed characters and settings.

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 describe settings, characters and atmosphere and integrating dialogue to convey character and advance the action in narratives.

I can draft and write by beginning to precise longer passages.

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

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 perform my own compositions, beginning to use appropriate intonation, volume so that meaning is clear.

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

I can use grammatical terminology for Year 5 understanding devices to build cohesion within a paragraph

I can use grammatical terminology for Year 5 understanding linking ideas across paragraphs using adverbials of time

I can indicate grammatical and other features by using commas to clarify meaning or avoid ambiguity in writing.

Maths

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

I can use line graphs to solve problems

I can read and interpret tables

I can interpret two way tables

I can read timetables

I can measure and calculate the perimeter of composite rectilinear shapes in cm and m.

I can measure perimeter

I can calculate perimeter

I can find unknown lengths

I can find unknown lengths

I can calculate and compare the area of rectangles (including squares), and including using standard units, cm², m² estimate the area of irregular shapes.

I can calculate the area of rectangles

I can calculate the area of compound shapes

I can estimate and approximate area

I can compare and order fractions whose denominators are multiples of the same number.

I can identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.

I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number

I can add and subtract fractions with the same denominator and denominators that are multiples of the same number.

I can recognise number sequences

I can recognise equivalent fractions

I can compare and order fractions less than 1

I can compare and order fractions greater than 1

I can compare and order fractions greater than 1