

Art and Design

Art: Drawing of planets and space linked to Music appreciation Holst Planets .

DT: Design and create a small scale orbit including, the Sun, Moon and Earth.

Use CAMS in designs and products to make them move in specific ways.

Geography

The World:
Volcanoes
Earthquakes
Physical Features
Human Experiences

History

Exploring plates tectonic theory – Alfred Wegener continental drift

Literacy

Writing a narrative to entertain, a recount to inform, a newspaper and a biography.

Recommending books to others
Discussing how authors effect their readers.

Write and perform poems.

Year 5: Autumn Has our Planet finished evolving?

PSHE

To be able to identify links between values and beliefs, decisions and actions.

To know how to make informed choices, including validity and reliability of information.

To know strategies for accessing appropriate help and support.

Music

Appreciate the wide range of music that has been inspired by space.

Computing

Researching information for the Space topic unit.

Maths

Read write, compare and order numbers to 1000000

Roman numerals to 1000

Rounding whole numbers and decimals

Square and cube numbers

Add, subtract and multiply whole numbers with more than 4 digits

Know and recall prime numbers

Science

Changes to materials
Explore the effect of the movement of celestial bodies

Gravity and how mechanisms work

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Literacy

Writing

Planning

- ✓ Identify the audience and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own.
- ✓ Develop characters and settings inspired by the reading pupils have done independently and as a class.

Draft & Write

- ✓ Selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
- ✓ Describing settings, characters; using dialogue to convey character and advance action.
- ✓ Use expanded noun phrases to convey complicated information concisely.
- ✓ Use a wide range of devices to build cohesion within paragraphs.
- ✓ Using further organisational and presentational devices to structure text and to guide the Reader [for example, headings, underlining]
- ✓ Use the correct tense consistently in writing.
- ✓ Recognise the difference between formal and informal language.
- ✓ Use a thesaurus.
- ✓ Prepare poems to read aloud and perform using intonation and expression.

Evaluate & Edit

- ✓ Proof-read for spelling and punctuation errors and making changes to vocabulary to enhance effects.
- ✓ Assessing the effectiveness of their own and others' writing
- ✓ Ensuring the consistent and correct use of tense throughout a piece of writing
- ✓ Ensuring correct subject and verb agreement when using singular and plural.

Grammar

Pupils in Y5 need to be able to identify, know and use the following:

- ✓ Indicating degrees of possibility using **adverbs**.
- ✓ Relative pronouns and relative clauses beginning with who, which, where, when, whose, that, or an omitted relative pronoun
- ✓ Parenthesis (bracket and dash)
- ✓ Devices to build cohesion within a paragraph [for example, then, after that, this, firstly]
- ✓ Linking ideas across paragraphs using adverbials of time [for example, later], place [for example, nearby]

Reading

- ✓ Ask questions to improve understanding of texts.
- ✓ Summarise ideas drawn from more than one paragraph, identifying key details
- ✓ Use age appropriate dictionaries to check the meanings of words
- ✓ Discuss how authors use varied sentences and descriptive language to affect the reader.
- ✓ Explain and discuss understanding of reading.
- ✓ Make book recommendations, giving reasons for choices
- ✓ Use an age appropriate dictionary to check spelling and meanings
- ✓ Learn a poem by heart.
- ✓ Retrieve, record and present information from non-fiction

Key vocabulary:

Cohesion, relative pronoun, relative clause, summarise, proof-read and edit, parenthesis, dialogue, character, formal, informal, slang, standard English

Mathematics

Number and Algebra

- ✓ Read Roman numerals to 1000 (M) and recognise years written in **Roman numerals**
- ✓ Read, write, order and compare numbers to at least 1000000 and determine the value of each digit
- ✓ Read, write and interpret **negative numbers** in context
- ✓ **Round** any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000
- ✓ Round **decimals** with two **decimal places** to the nearest whole number and to one decimal place
- ✓ Read, write, order and compare numbers with up to three decimal places
- ✓ Solve number problems and practical problems that involve all of the above
- ✓ Count forwards or backwards in **steps of powers of 10** for any given number up to 1000000
- ✓ Establish whether a number up to 100 is **prime**
- ✓ Recognise and use square numbers and cube numbers, and the notation for **squared (²)** and **cubed (³)**
- ✓ Multiply and divide numbers mentally drawing upon known facts
- ✓ Add and subtract numbers mentally with increasingly large numbers
- ✓ Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- ✓ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
- ✓ Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including **long multiplication** for two-digit numbers
- ✓ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy

Essential Knowledge

- ✓ Know and use the vocabulary of prime numbers, **prime factors** and composite (non-prime) numbers
- ✓ Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- ✓ Recall prime numbers up to 19
- ✓ I know decimal number bonds 1 to 10 (some examples below).

$0.6 + 0.4 = 1$	$3.7 + 6.3 = 10$
$0.4 + 0.6 = 1$	$6.3 + 3.7 = 10$
$1 - 0.4 = 0.6$	$10 - 6.3 = 3.7$
$1 - 0.6 = 0.4$	$10 - 3.7 = 6.3$
$0.75 + 0.25 = 1$	$4.8 + 5.2 = 10$
$0.25 + 0.75 = 1$	$5.2 + 4.8 = 10$
$1 - 0.25 = 0.75$	$10 - 5.2 = 4.8$
$1 - 0.75 = 0.25$	$10 - 4.8 = 5.2$

Key Vocabulary

What do I **add** to 0.8 to make 1?

What is 1 **take away** 0.06?

What is 1.3 **less than** 10?

How many more than 9.8 is 10?

What is the **difference** between 0.92 and 10?

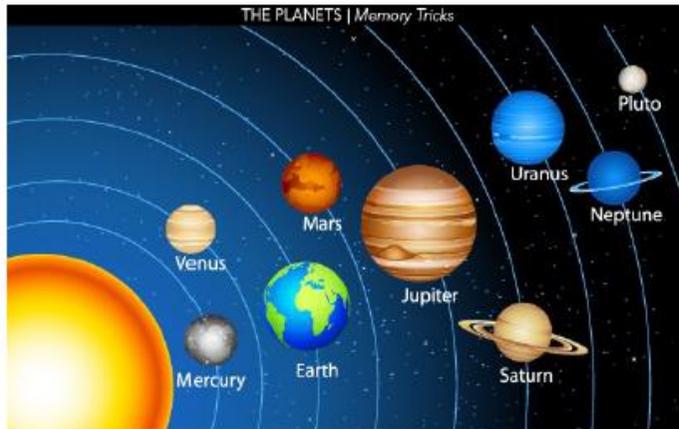
Key vocabulary: Roman numerals, digit, place value, negative numbers, rounding, decimals, decimal place, prime number, square numbers (²), cube numbers (³), long multiplication

Year 5 Autumn: Has our Planet finished evolving?

<p>Geography</p> <p><u>Locations</u></p> <ul style="list-style-type: none"> ✓ Locate the world's countries, using maps to focus on North and South America. Identify the key physical characteristics with focus on volcanoes ✓ identify the position and significance of Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones <p>Key vocabulary: pole, meridian, continent, Arctic, Antarctic, hemisphere</p> <p><u>Human and Physical</u></p> <ul style="list-style-type: none"> ✓ Use geographical vocabulary to refer to volcanoes <p>Key physical vocabulary: mountains, volcanoes, earthquakes, dormant, active</p> <p><u>Skills</u></p> <p>Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied</p>	<p>Science</p> <p><u>Properties and changes of materials:</u></p> <ul style="list-style-type: none"> ✓ Group materials based on their properties ✓ Investigate how some materials dissolve in water to form a solution ✓ Explore how mixtures might be separated ✓ Conduct comparative and fair tests to give reasons why everyday materials are used for a particular use ✓ Demonstrate that dissolving, mixing and changes of state are reversible ✓ Explore and explain that some changes result in the formation of new materials ✓ Investigate how lava and molten rock are part of the process of creating new rocks <p>Key vocabulary: hardness, solubility, transparency, conductivity, electrical, thermal, magnets, filtering, sieving, evaporating, saturation, reversible, irreversible, comparative, fair test</p> <p><u>Earth and Space</u></p> <ul style="list-style-type: none"> ✓ Describe the movement of the Earth and planets in relation to the Sun – link to DT ✓ Explain how the rotation of the Earth on its axis causes day and night ✓ Describe the movement of the Moon in relation to the Earth <p>Key vocabulary: solar system, planets, celestial body, orbit, rotate, axis, geocentric</p> <p><u>Forces</u></p> <ul style="list-style-type: none"> ✓ Explain that unsupported objects fall towards the Earth because of gravity ✓ Understand how gravity affects the direction that lava flows ✓ Identify the effects of air resistance, water resistance and friction ✓ Understand that mechanisms allow a smaller force to have a great effect <p>Key vocabulary: resistance, friction, levers, pulleys, gears, springs</p>	<p>Music</p> <p><u>Appreciate</u></p> <ul style="list-style-type: none"> ✓ Listen and respond to Holst's The Planets Suite ✓ Listen to the playlist that accompanies The Jamie Drake Equation <p><u>Perform and Share</u></p> <ul style="list-style-type: none"> ✓ Perform the song Livin on a Prayer using voices and instruments <p><u>Play, Sing and Create</u></p> <ul style="list-style-type: none"> ✓ Learn to sing the Charanga song 'Livin on a prayer' ✓ Improvise using voices and/or instruments within the song. <p>Key vocabulary: Rock music, song structure, lead vocals, amplifier, backbeat, crescendo</p>
<p>History</p> <p><u>Chronology of events</u></p> <ul style="list-style-type: none"> ✓ Research and plot the different theories and new evidence on a timeline <p>Key vocabulary: theory, conjecture, evidence, geologists, landmass (Pangaea)</p> <p><u>Comparing and contrasting periods and happenings</u></p> <ul style="list-style-type: none"> ✓ Analyse why there was a shift in acceptance of the plates tectonic theory <p>Key vocabulary: predecessor, hypothesis</p> <p><u>Change and continuity</u></p> <ul style="list-style-type: none"> ✓ Discuss how the past has influenced the present and how the present will shape the future <p>Key vocabulary: prediction, theorise</p> <p><u>Cause and effect</u></p> <ul style="list-style-type: none"> ✓ Draw simple conclusions as to why change has happened <p>Key vocabulary: question words "who, what, why, when, where, how"</p> <p><u>Historical enquiry and forming conclusions from a variety of sources</u></p> <ul style="list-style-type: none"> ✓ Debate the different theories ✓ Interpret the evidence given ✓ Analyse which sources are the most reliable <p>Key vocabulary: sources, reliability, analysis, primary sources, secondary sources</p>	<p>Art</p> <p><u>Media:</u> Painting</p> <p><u>Appreciation:</u></p> <p><u>Artist:</u> Robert McCall</p> <ul style="list-style-type: none"> ✓ To consider the purpose of the art ✓ To use art as an stimulus for their own art explaining where inspiration was sought from <p><u>Exploring and developing ideas:</u></p> <ul style="list-style-type: none"> ✓ Explore different painting techniques to express mood or emotion <p><u>Investigating and making art:</u></p> <ul style="list-style-type: none"> ✓ Use a range of tools to apply paint to different surfaces ✓ Investigate the effect of light and colour, texture and tone on natural and manmade objects <p><u>Evaluating and developing art:</u></p> <ul style="list-style-type: none"> ✓ To explain and give reasons why art techniques were chosen ✓ To refine and adapt work to reflect the intended purpose <p>Key vocabulary: Surfaces, techniques, refine, tone, effect, mixing, shade, natural, mood, emotion, manmade</p>	<p>Computing</p> <p><u>Information Technology – Search Technology</u></p> <ul style="list-style-type: none"> ✓ Access a search website ✓ Identify key information to create search request ✓ Identify appropriate and inappropriate websites to access ✓ Identify reliable and unreliable information ✓ Create a report about volcanoes <p><u>Information Technology – Using a range of software</u></p> <ul style="list-style-type: none"> ✓ Identify information that needs to be conveyed to the audience ✓ Add, reposition, delete, alter digital content ✓ Save, open and print the report <p>Key vocabulary: Website, request, search, appropriate, inappropriate, reliable, unreliable, information, access, save, open, print, reposition, alter, digital content, report</p>
<p>DT</p> <p><u>Research:</u></p> <ul style="list-style-type: none"> ✓ Find out how linear and cylindrical CAMS work. <p><u>Design:</u></p> <ul style="list-style-type: none"> ✓ Design and sketch an orbit of the Sun, Moon and Earth and label the CAMs used for rotation around each other. <p><u>Create:</u></p> <ul style="list-style-type: none"> ✓ Make a small-scale planetary orbit which includes the Sun, Moon and Earth. ✓ Include a linear or cylindrical CAM in the model. <p><u>Evaluate:</u></p> <ul style="list-style-type: none"> ✓ Throughout the process, test if the CAM is functioning correctly and adapt if necessary. <p>Key vocabulary: Evaluate, design, create, suitable, purpose, prototype, combine, mechanism, circular CAM</p>	<p>RE</p> <p><u>Christianity</u></p> <ul style="list-style-type: none"> ✓ Explore the variety of different Christian communities <p><u>Hinduism</u></p> <ul style="list-style-type: none"> ✓ Explore Hindu communities in different countries <p>Key vocabulary: Communities, belief, denominations, immigration, colonial, culture, festivals</p>	<p>Outdoor Learning</p> <p><u>Research</u></p> <ul style="list-style-type: none"> ✓ Research different weaving techniques ✓ Research which materials can be used for weaving <p><u>Design</u></p> <ul style="list-style-type: none"> ✓ Design a garden wind chime <p><u>Create/ Evaluate</u></p> <ul style="list-style-type: none"> ✓ Create the wind chime using available materials and the weaving technique <p>Key vocabulary: weave, wind chime, decoration, string, sticks, hanging</p>
<p>MFL</p> <p><u>Oracy</u></p> <ul style="list-style-type: none"> ✓ Listen for specific words and phrases ✓ Recognise and respond to sound patterns and words <p><u>Literacy</u></p> <ul style="list-style-type: none"> ✓ Read and understand a range of familiar written phrases <p><u>Intercultural understanding</u></p> <ul style="list-style-type: none"> ✓ Locate country/countries where the language is spoken <p>Key vocabulary: See homework Books for full list of vocabulary and translations</p>	<p>PSHE</p> <p><u>Health and wellbeing</u></p> <ul style="list-style-type: none"> ✓ Healthy lifestyle ✓ Growing and changing ✓ Keeping safe <p>Key vocabulary: human reproduction, sexual intercourse, pregnancy, contraception, bodies, safety, abuse, FGM</p>	<p>PE</p> <ul style="list-style-type: none"> ✓ Health, Fitness & Wellbeing – Circuits ✓ Control/Pass & Receive/Target – Football ✓ Catching/Throwing/Agility – Tag Rugby ✓ Catching/Throwing/Target/Strategy – Netball

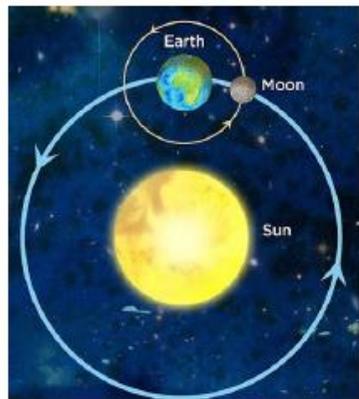
Has Our Planet Finished Evolving?

The planets



My, Very, Easy, Method: Just, Set, Up, Nine, Planets

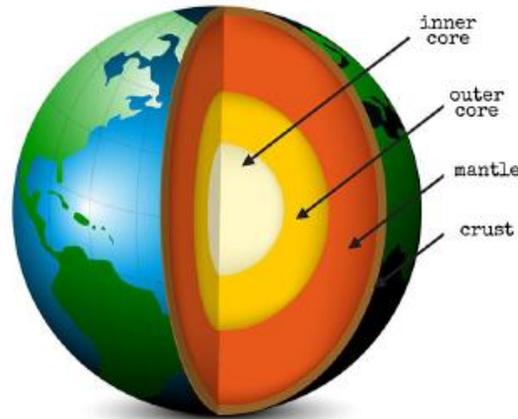
The Earth, Moon and Sun



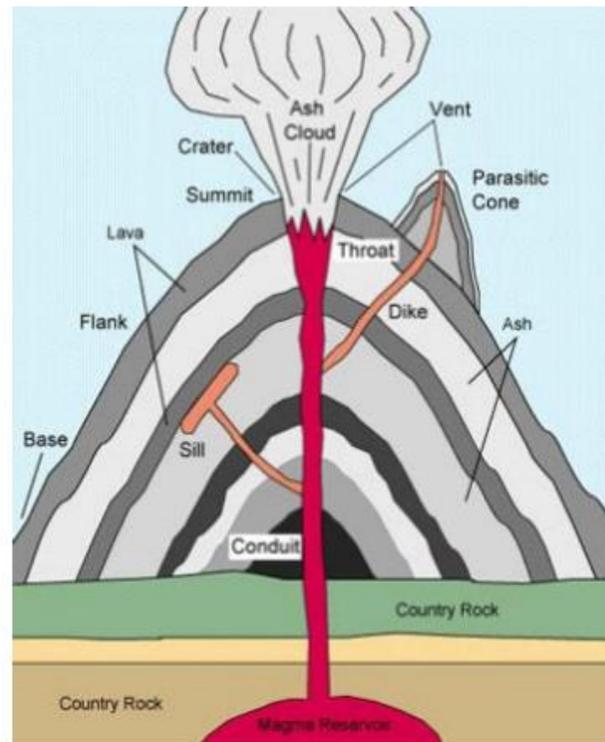
The Earth rotates (spins) on its axis. It does a full rotation once in every 24 hours. At the same time that the Earth is rotating, it is also orbiting (revolving) around the Sun.

It takes a little more that 365 days to orbit the sun. Daytime occurs when the side of the Earth is facing towards the Sun. Night occurs when the side of Earth is

Layers of the Earth



Features of a volcano



Key Vocabulary

Active/ Dormant/ Extinct Volcano	The category given to different volcanoes based on when the last erupted.
Crater	A large bowl shaped cavity in the ground.
Earthquake	A sudden violent shaking of the ground that causes destruction.
Richter Scale	A numerical scale for measuring the severity of an earthquake
Tectonic Plate	The pieces of the Earth's crust that join together to make the Earth's surface.
Gravity	The force that attracts objects to the centre of the Earth.
Orbit	The curved path of an object or spacecraft around a star, planet or moon.
Astronomy	The branch of science that explores space.
Friction	The resistance that a surface or object encounters when moving over another.
ISS	The International Space Station
Star	A fixed luminous point in the sky, such as the sun.