



Big Ideas Curriculum Planning year 5 2022 2023

	Year 5 Planning Overview		
	Autumn	Spring	Summer
Topic title	Planet Earth	Home from home (Vikings)	Egyptians
Drivers (past present future)	Past: How did people use the sun, moon and stars in their	Past: Why did people invade other places?	Past: How dd the ancient Egyptians improve our
present ruture)	everyday life? Present: How does the sun affect our everyday life? (time zones, 24 hour lifestyles, farming, daylight hours in different places) Future: How dangerous could the sun become? (sun itself, skin cancers etc, deserts, erosion, bodies of water drying up)	Present: Why do people migrate today? (jobs, war, famine, persecution) Future: Where will everyone go? (if our population continues to grow)	world? Present: What has survived from the Ancient Egyptians that we still use today? Future: How will we be remembered? What will we still use in the future?
Global themes covered	Environment – importance of the sun Being Healthy – how can we protect ourselves from the sun?	Human Rights – Should everyone be able to move around freely? Equity and Diversity – How can everyone be given an equal chance?	Technology – What advances did the Egyptians give us? Aspiration – What legacy do you want to leave behind?
Charity Link	Children's Cancer trust		<u>, </u>
Visit/ experience linked to the topic	Trip to National Space Centre	Hire actors in – re-enactment, artefacts. Viking school visits.com	British Museum Visit & theatre trip (Joseph and his technicoloured dreamcoat) London

Overall outcome for topic (showcase) Hook	Presentation on how people can protect our planet (linking to what might happen if our planet is unhabitable in the future – 50 minutes to save the world https://www.youtube.com/watch?reload=9&v=wthTmQHmuZ0	Write a letter to MEP to share their thoughts about their future freedom to be able to travel and settle where they desire. (COVID, Brexit, Immigration links)	Create a 3D pyramid time capsule to house artifacts from now that children think would help people in the future know about our lives today
Key Texts	Cosmic- Frank Cottrell Ask an Astronaut: My guide to life in space	How to train a dragon Viking Boy by Tony Bradman	Secrets of a Sun King by Emma Carroll My mummy ate my homework by Thiago de Moraes
English/Phonics	Persuasive presentation – Non-Chronological report – Planet Earth Biography - one of the main characters in Cosmic Narrative – fantasy stories	Letters - linked to overall topic outcome Discussion report – history outcome Narrative – starting with the action	Explanation – History outcome Drama – class assembly Poetry - narrative poetry Recount – Howard Carter's diary
Theme links to Maths			

Focus Subjects	Block 1

Science - Earth and Space

National Curriculum Objectives

- describe the movement of the Earth, and other planets, relative to the Sun in the solar system
- describe the movement of the Moon relative to the Earth
- describe the Sun, Earth and Moon as approximately spherical bodies
- use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Granular Knowledge

- I know the names of the planets
- I can describe the movement of the Earth and other planets relative to the Sun
- I can describe the movement of the Moon relative to the Earth
- I can describe the Sun, Earth and Moon (using the term spherical)
- I can explain the movement of the Earth and other planets relative to the Sun
- I can explain the movement of the Moon relative to the Earth
- I can explain and demonstrate how night and day are created

Challenges

- I can compare the time of day at different places on the earth
- I can create shadow clocks
- I can begin to understand how older civilizations used the sun to create astronomical clocks, e.g. Aztecs
- I can explore the work of some scientists (Ptolemy, Alhazen, Copernicus)

Geography

National Curriculum Objectives Place knowledge

 understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom

Geographical skills and fieldwork

use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world

Granular Knowledge

- I can explain why many cities are situated on or close to rivers
- I can explain why people are attracted to live by rivers
- I can explain the course of a river
- I can explain how a location fits into its wider geographical location with reference to human and economical features

Challenges

- I can rank geographical information in order of importance, justifying their viewpoints and adapt thinking as new geographical information arises
- I can evaluate geographical information/sources and draw appropriate conclusions

History

National Curriculum Objectives

- the achievements of the earliest civilizations an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Egypt;
- Pupils should understand how our knowledge of the past is constructed from a range of sources

Granular Knowledge

- I know how to read timelines with centuries and decades
- I can draw a timeline with different historical periods showing key historical events or lives of significant people
- I can compare two or more historical periods; explaining things which changed and things which stayed the same
- I can describe how crime and punishment has changed over a period of time

Challenges

 I can adapt their ideas and viewpoints as new historical information arises

Subject Outcome 1	Science: Earth and Space Create a 3D model of the Earth, Moon and Sun and the orbital relationships between the two	Geography: Present a 'Location, Location, Location' style video to persuade a Viking where is best to settle (Horrible Histories style)	History: Create a double page spread to explain the achievements of the Egyptians using evidence gathered from a range of sources
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Science - Forces (Gravity)

National Curriculum Objectives

 explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object

Granular Knowledge

- I know the vocabulary related to forces
- I can explain what gravity is and its impact on our lives

Challenges

 I can explore how scientists, such as Galileo Galilei and Isaac Newton helped to develop the theory of gravity

History

National Curriculum Objectives

- the Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor
- Britain's settlement by Anglo-Saxons and Scots
- Pupils should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance

Granular Knowledge

- I can test out a hypothesis in order to answer questions
- I can explain how Parliament affects decision making in England
- I can explain how our locality has changed over time

Challenges

 I can make connections and comparisons between the past and present through explaining and justifying their reasons

Science – Properties and changes of materials

National Curriculum Objectives

- 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
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- demonstrate that dissolving, mixing and changes of state are reversible changes
- 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.

Granular Knowledge

- I know and can demonstrate that some changes are reversible and some are not
- I can compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity, [electrical & thermal], and response to magnets)
- I can describe how a material dissolves to form a solution: explaining the process of dissolving
- I can describe and show how to recover a substance from a solution
- I can describe how some materials can be separated
- I can demonstrate how materials can be separated (e.g. through filtering, sieving and evaporating)
- I can discuss reversible and irreversible changes

			 I can give evidenced reasons why materials should be used for specific purposes I can explain how some changes result in the formation of a new material and that this is usually irreversible
			 Challenges I can describe methods for separating mixtures (filtration, distillation) I can they work out which materials are most effective for keeping us warm or for keeping something cold I can use their knowledge of materials to suggest ways to classify (solids, liquids, gases) I can explore changes that are difficult to reverse, e.g. burning, rusting and reactions such as vinegar with bicarbonate of soda I can explore the work of chemists who created new materials, e g Spencer Silver (glue on sticky notes) or Ruth Benerito (wrinkle free cotton)
Subject Outcome 2	Science: Forces (Gravity) Design a parachute to support a Rocket landing on the moon/ returning to Earth – thinking about shape, size etc	History: Create a discussion report to compare Vikings and Saxons and their impact on Britain (double page spread?)	Science: (Chemical Changes) use knowledge of solids, liquids and gases to filter dirty water: who can make the cleanest water?

	Geography	PSHE: Diversity and Communities	Geography:
		Drug Education	
	National Curriculum Objectives Locational knowledge name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers) identify the position and significance of latitude, longitude, the Tropics of Cancer and Capricorn,	 Diversity and Communities: How do other people's perceptions, views and stereotypes influence my sense of identity? RR How do views of gender affect my identity, friendships, behaviour & choices? RR What are people's different identities, locally and in the UK? FP 	
	Human and physical geography describe and understand key aspects of: physical geography, including: climate zones and vegetation belts, rivers, mountains	 How can I show respect to those with different lifestyles, beliefs & traditions? RR What are the negative effects of stereotyping? RR Which wider communities & groups am I part of & how does this benefit me? MW 	
Block 3	Granular Knowledge I can use some basic Ordnance Survey map symbols I know how to use an atlas I can name and locate many of the world's most famous mountainous regions in an atlas I can name and locate many of the world's most famous rivers in an atlas I can locate the Tropic of Cancer and Tropic of Capricorn I know the difference between a biome, climate band and eco-system I can plan a journey to a place in another part of the world, taking account of distance and time Challenges	 What are voluntary organisations and how do they make a difference? MW What is the role of the media and how does it influence me and my community? Who cares for the wider environment and what is my contribution? Drug Education: What do I know about medicines, alcohol, smoking, solvents and illegal drugs and why people use them? DAT How does drug use affect the way a body or brain works? DAT How do medicines help people with different illnesses? DAT What immunisations have I had or may I have in future and how do they keep me healthy? HP What is drug misuse? DAT What are some of the laws about drugs? DAT How can I assess risk, recognise peer influence & respond 	
		 What is drug misuse? DAT What are some of the laws about drugs? DAT	

	Subject Outcome 3	Geography: create a fact file about the physical features of our planet: what makes up our Earth?	•	Geography: create an explanation video to accompany a presentation to explain how a river is formed
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Block 4

Science Living things and their habitats

National Curriculum Objectives

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life process of reproduction in some plants and animals

Granular Knowledge

- I know what a life cycle is
- I can describe the life cycle of different living things, e.g. mammal, amphibian, insect bird
- I can describe the differences between different life cycles
- I can describe the process of reproduction in plants
- I can describe the process of reproduction in animals
- I can compare the life cycles of plants and animals in their local environment with the life cycles of those around the world, e.g. rainforests

Challenges

 I can observe their local environment and draw conclusions about lifecycles, e g plants in the vegetable garden or flower border

Science – Animals – including Humans National Curriculum Objectives

- describe the changes as humans develop to old age
- Pupils should draw a timeline to indicate stages in the growth and development of humans
- They should learn about the changes experienced in puberty

Granular Knowledge

 I can create a timeline to indicate stages of growth in humans

Challenges

 I can create a timeline to indicate stages of growth in certain animals, such as frogs and butterflies

Science - Forces

National Curriculum Objectives

- identify the effects of air resistance, water resistance and friction, that act between moving surfaces
- recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect

Granular Knowledge

- I can identify the effect of air resistance
- I can identify the effect of water resistance
- I can identify the effect of friction
- I can explain the effect of air resistance
- I can explain the effect of water resistance
- I can explain the effect of friction
- I can explain how levers, pulleys and gears allow a smaller force to have a greater effect

Challenges

- I can describe and explain how motion is affected by forces (including gravitational attractions, magnetic attraction and friction)
- I can design very effective parachutes
- I can work out how water can cause resistance to floating objects

D&T

National Curriculum Objectives Design

- use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

 select from and use a wider range of tools and equipment to perform practical tasks accurately

Evaluate

 evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Technical knowledge

 apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Granular Knowledge

- I can come up with a range of ideas after collecting information from different sources
- I can produce a detailed, step-by-step plan
- I know how to use tools safely
- I can evaluate appearance and function against original criteria
- I can use a range of tools and equipment competently
- I can make a prototype before I make a final version
- I can continuously check that my design is effective and fit for purpose
- I can explain how a product will appeal to a specific audience
- I can suggest alternative plans; outlining the positive features and draw backs
- I can evaluate appearance and function against the original design criteria

	 I can describe the changes experienced in puberty I can draw a timeline to indicate stages in the growth and development of humans 		I can assess how well my product works in relation to the design criteria and the intended purpose and suggest improvements Challenges
Subject Outcome 4	Science: Living Things Compare how reproduction rates are changing for different species (e.g. endangered animals and baby booms)	Science: Forces Modify a basic ship design to make the fastest ship to move through water, considering water resistance and levers (oars)	DT Using knowledge of levers and pulleys, make a successful shaduf to carry water from one place to another

Block 5

PSHE: My Emotions

- How can we make mental wellbeing a normal part of daily life, in the same way as physical wellbeing?
- What does it mean to have a 'strong sense of identity' & 'self-respect'?
- What can I do to boost my self-respect?
- How do I manage strong emotions?
- How can I judge if my own feelings and behaviours are appropriate & proportionate?
- How do I recognise how other people feel and respond to them?
- What is loneliness and how can we manage feelings of isolation?
- How common is mental ill health and what selfcare techniques can I use?
- How and from whom do I get support when things are difficult?

Music

National Curriculum Objectives

- play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression
- improvise and compose music for a range of purposes using the inter-related dimensions of music
- listen with attention to detail and recall sounds with increasing aural memory
- use and understand staff and other musical notations
- appreciate and understand a wide range of highquality live and recorded music drawn from different traditions and from great composers and musicians

Granular Knowledge

- I can breathe in the correct place when singing
- I can maintain my part whilst others are preforming their part
- I can improvise within a group using melodic and rhythmic phrases
- I can change sounds or organise them differently to change the effect
- I can compose music which meets specific criteria
- I can use notation to record groups of pitches (chords)
- I can use my music diary to record aspects of the composition process
- I can choose the most appropriate tempo for a piece of music
- I know what a rhythmic phrase is
- I can describe, compare and evaluate music using musical vocabulary
- I can explain why I think music is successful or unsuccessful
- I can suggest improvement to my own work and that of others

PSHE: Personal Safety

- How do I recognise my own feelings and consider how my actions may affect the feelings of others?
- Can I use my Early Warning Signs to judge how safe I am feeling?
- How do I judge who is a trusted adult or trusted friend?
- How can I seek help or advice from someone on my network of support and when should I review my network?
- How could I report concerns of abuse or neglect?
- Can I identify appropriate & inappropriate or unsafe physical contact?
- How do I judge when it is not right to keep a secret and what action could I take?
- How can I recognise risks online and report concerns?
- What strategies can I use to assess risk and help me feel safer when I am feeling unsafe?

			I can contrast the work of a famous composer and explain my preferences	
			 Challenges I can use pitches simultaneously to produce harmony by building up simple chords I can devise and play a repeated sequence of pitches on a tuned instrument to accompany a song Do I understand the relation between pulse and syncopated patterns I can identify (and use) how patterns of repetitions, contrasts and variations can be organised to give structure to a melody, rhythm, dynamic and timbre I can explain how tempo changes the character of music I can identify where a gradual change in dynamics has helped to shape a phrase of music 	
	Subject Outcome 5	PSHE: My Emotions	Music: Create a musical piece to accompany a Viking Saga to add atmosphere and appropriate mood	PSHE: Personal Safety
RE U	nit			
RE U	nit Outcome:			
(cov	/ D&T Unit ered by ert teacher)	Art National Curriculum Objectives Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. Pupils should be taught: to create sketch books to record their observations and use them to review and revisit ideas to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] about great artists, architects and designers in history		

	Granular Knowledge I can identify and draw objects and use marks and lines to produce texture I know how to shade I can successfully use shading to create mood and feeling I can organise line, tone, shape and colour to represent figures and forms in movement I can express emotion in my art I can use the work of an artist I have researched to replicate a style Challenges		
Subject Outcome 6:	Art: after analysing a range of artists who have created art with the theme of water, create a piece of art linked to movement and water.	Art - – sculpture of Roman artefact (mosaic)	Art - Create papier mâché masks using careful observations of their own faces/ hieroglyphs
Computing (covered by expert teacher)			
Subject Outcome 7:			