

Putting Sustainability at the Heart of the Curriculum Chartered College of Teaching - Tuesday, 25th February 2025







Half-termly planning overview Year 2 – Spring Term 1



Enquiry question: Where are the polar regions and how are they changing?

Harmony principle: The principle of Oneness

Sustainability action: Identifying three personal energy-saving actions

Great Work: Launching an Every Action Counts campaign

Partners in learning: British Antarctic Survey, 2041 Foundation, ecoDriver



	Weekly Questions								
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6			
	Where are the polar regions and how are they different?	How do animals survive in the polar regions?	Where do people live in the polar regions?	How is the Arctic changing and why?	How is Antarctica changing and why?	What action can we take to stop the ice melting?			
GEOMETRY	How can I create a snowflake design using rotational symmetry?	How can I create a picture of an Arctic tern using reflective symmetry?	What shapes would support a shelter for people in the polar regions?	How is a polar bear paw like my hand?	What can we learn from the webbed feet of an emperor penguin?	What are concentric circles and where would we see them in the polar regions?			
SCIENCE	What do we find in the polar regions? (living, dead, never alive)	Which animals live in the polar regions and how do they protect their offspring?	How are polar animals suited to their habitat and what are their basic needs?	How is the Arctic food chain threatened?	How is the Antarctic food chain threatened?	Why is ice such an important part of polar habitats?			

Actions and consequences - Every Action Counts.



Half-termly planning overview Year 3 - Spring Term 2



Enquiry question: How is Planet Earth changing and what can we do about it?

Harmony principle: The principle of Oneness

Sustainability action: Celebrating Earth Hour with the school community

Great Work: Celebrating Earth Hour at the end of March with the school community

Partners in learning: Adrianos Golemis (astronaut)



	Weekly Questions							
	Week 1 Week 2 Week 3 Week 4 Week 5							
	What is the story of our Planet Earth?	What would it be like to be an astronaut?	What lives beneath our feet?	Where and why do tornadoes occur?	Why is our rainfall becoming more extreme?	Why are we getting more forest fires and how can we reduce the heat on our planet?		
GEOMETRY	How can I create a sphere using bubbles?	How can I use shape to design a symmetrical rocket (ship)?	How will I use shapes to create geometric rock images?	How will I represent the shape of a tornado using a Fibonacci spiral?	What is the geometry of a water droplet?	What is the shape of a flame?		
SCIENCE	What do fossils teach us about our planet's past?	How will I explore how gravity works?	How do magnets work?	How will I use my knowledge of magnets to create my own magnet game?	How effective are magnets at taking materials out of water?	How can I create an investigation to show how the Earth's climate is changing?		

Earth Hour 2025 is on 22nd March.



Half-termly planning overview Year 6 – Spring Term 1



Enquiry question: How are we connected to Antarctica?

Harmony principle: The principle of Interdependence

Sustainability action: Monitoring energy use to save money and reduce CO2

Great Work: Creating 'We are Antarctica' poetry and posters; ice sculptures

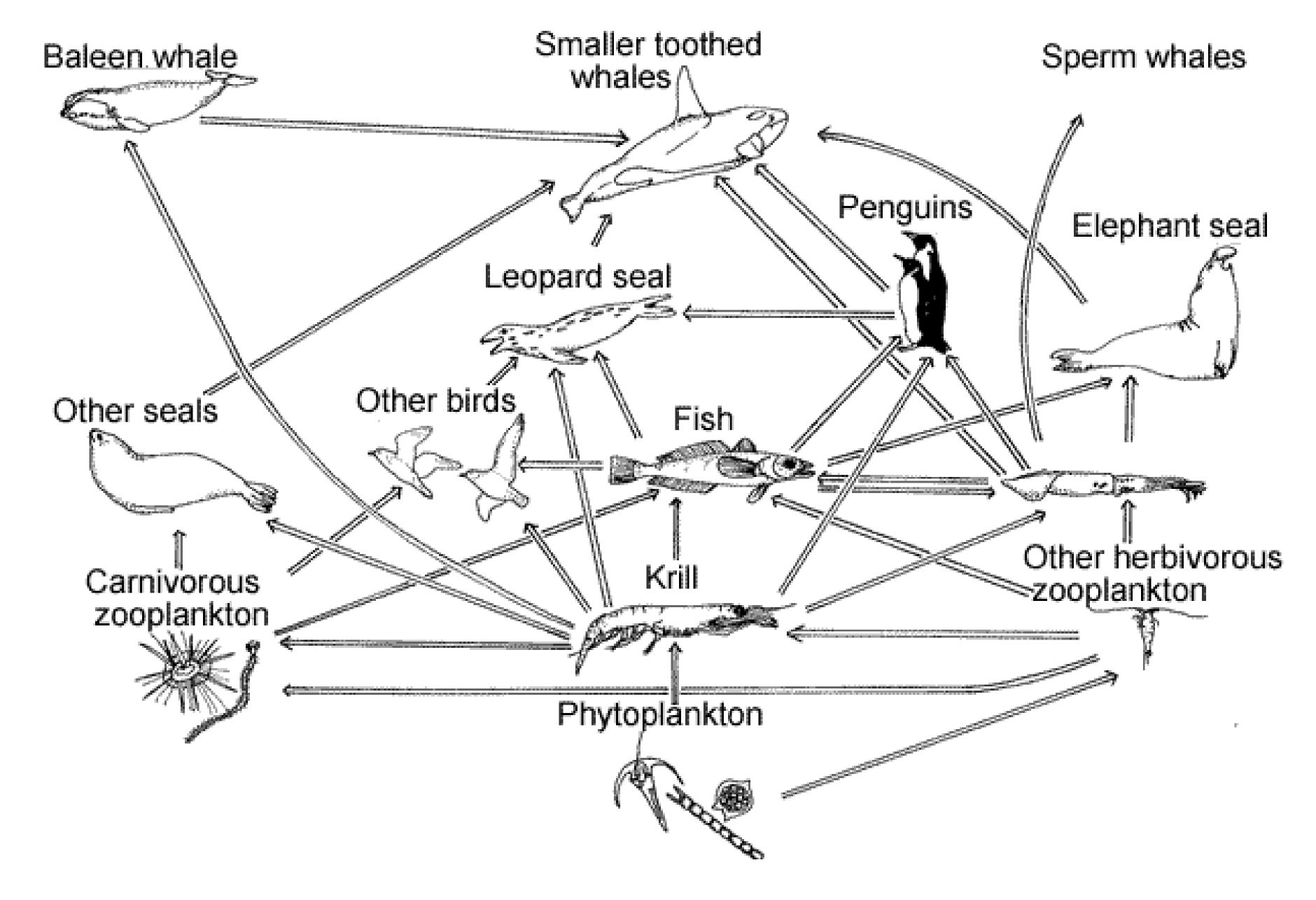
Partners in learning: Reboot the Future; British Antarctic Survey; 2041 Foundation





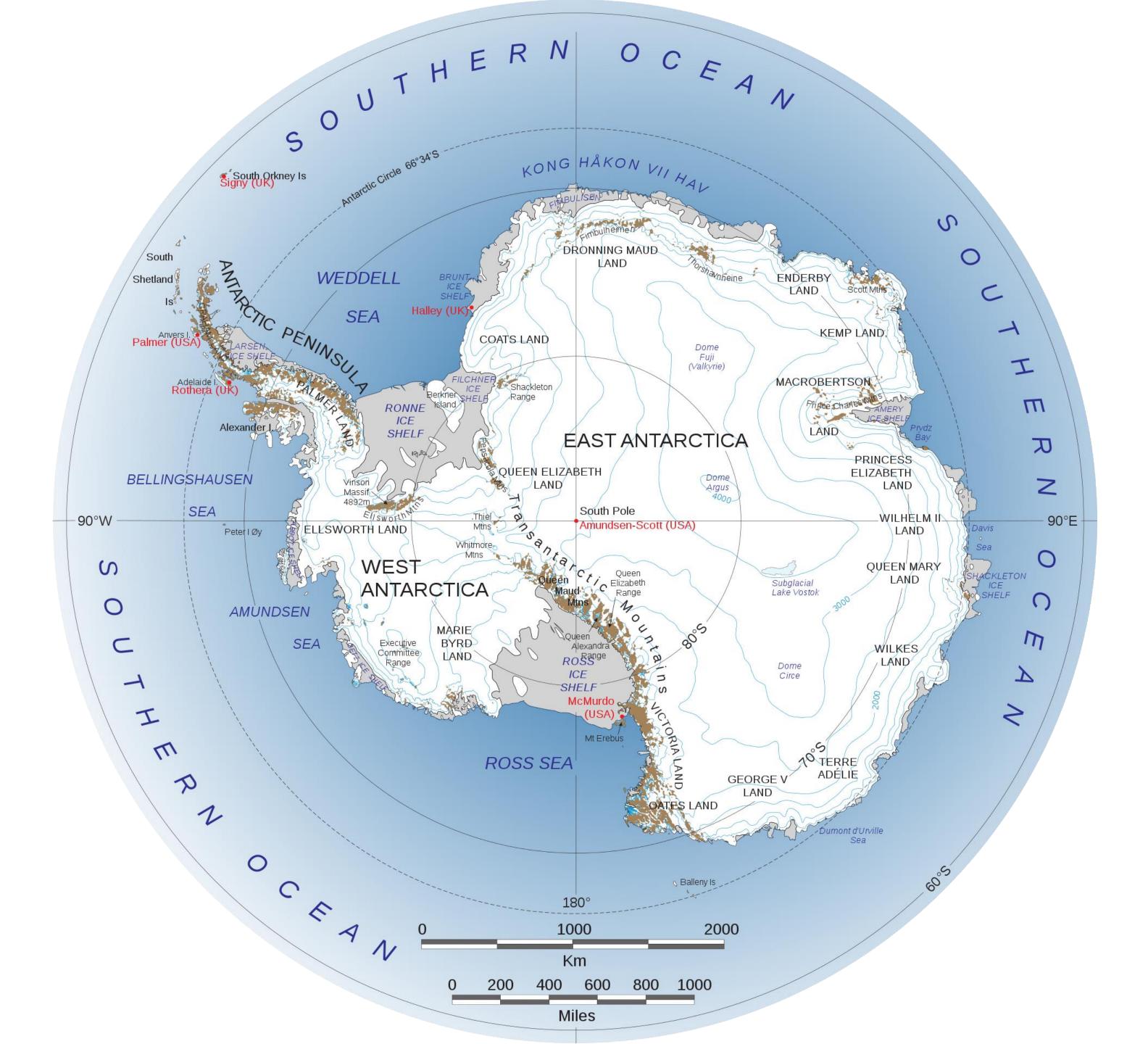
	Weekly Questions								
	Week 1 Week 2 Week 3 Week 4 Week 5 Week								
	Where is Antarctica and what is it like?	How does the Antarctic ecosystem work together?	How are penguins adapted to survive in Antarctica?	How will we celebrate the beauty of Antarctica?	How are we changing the environment in Antarctica?	Why does Antarctica need protecting?			
GEOMETRY	What are the proportions of an iceberg above and below water? (1)	What are the proportions of an iceberg above and below water? (2)	How can the Fibonacci spiral help me draw krill? (1)	How can the Fibonacci spiral help me draw krill? (2)	How can I create a six-pointed snowflake design? (1)	How can I create a six-pointed snowflake design? (2)			
SCIENCE	What happens when an iceberg melts? (observing ice cubes in salt water)	How are living things in Antarctica interdependent? (food webs)	How do penguins work together to survive?	How does electricity flow through a circuit? (scientific circuit diagrams)	How does the voltage of a circuit affect the brightness in a lamp?	What question about electricity do I want to investigate?			

MATHS	How has the surface temperature in Antarctica changed over time?	What does data tell us about melting ice and rising sea levels?	How can I solve and create number problems involving penguins?	What does our energy use cost? How can data help us to reduce energy use?	What can I find out about our use of energy in school and what we can do to reduce it?	How will we measure our progress towards meeting our energy reduction targets?
ART & DESIGN	How will I use Matisse's technique of paper 'cut outs' to create an Antarctic composition?	What different media will I use to create an artwork depicting <i>The</i> <i>Endurance</i> ?	How can I represent an emperor penguin pair in an artwork? (1)	How can I represent an emperor penguin pair in an artwork? (2)	What features of famous posters are effective in engaging an audience?	What features will I include in a poster promoting the protection of Antarctica?
COMPUTING	What can I find out about the Antarctic continent online?	How can I present data on rising sea levels?	How will I research a penguin documentary voiceover online?	How can I use technology to record my voiceover?	What images will work most effectively with my voiceover?	What criteria will we use to evaluate each other's projects?
PE (DANCE)	How can we move as if underwater?	What shapes and movements can we create in groups to represent icebergs?	How can we recreate the movement of a penguin and penguin huddles?	What symmetrical shapes can we recreate in pairs?	How can we combine movements to tell the story of Antarctica?	How can we work in groups to perform an Antarctic dance?
GEOGRAPHY	Why is Antarctica called a desert? What are the features of its climate?	What are the time zones in Antarctica? How many hours of daylight are there at different times of year?	What are scientists from the British Antarctic Survey exploring in Antarctica today? Why?	How can I use a map to show how the Antarctic landscape has changed over time?	What human and physical features will I include in a scale map of Antarctica?	What is the Antarctic Treaty and why should we support it?
MUSIC	What instruments can I use to represent elements of Antarctica?	How will we work together to create a group composition inspired by Antarctica?	How can we use musical notation to record our composition?	What do we need to adapt to improve our composition?	What will help us perform our composition with precision and confidence?	How can we evaluate the effectiveness of our composition and the compositions of others?
PSHE	What would make me a great team member on an Antarctic expedition?	What do I rely on others for?	What do I do for others?	How do members of a team rely on each other?	How can I communicate my needs to others?	How can I show compassion to others?



Understanding the science of ecosystems... but something is missing?

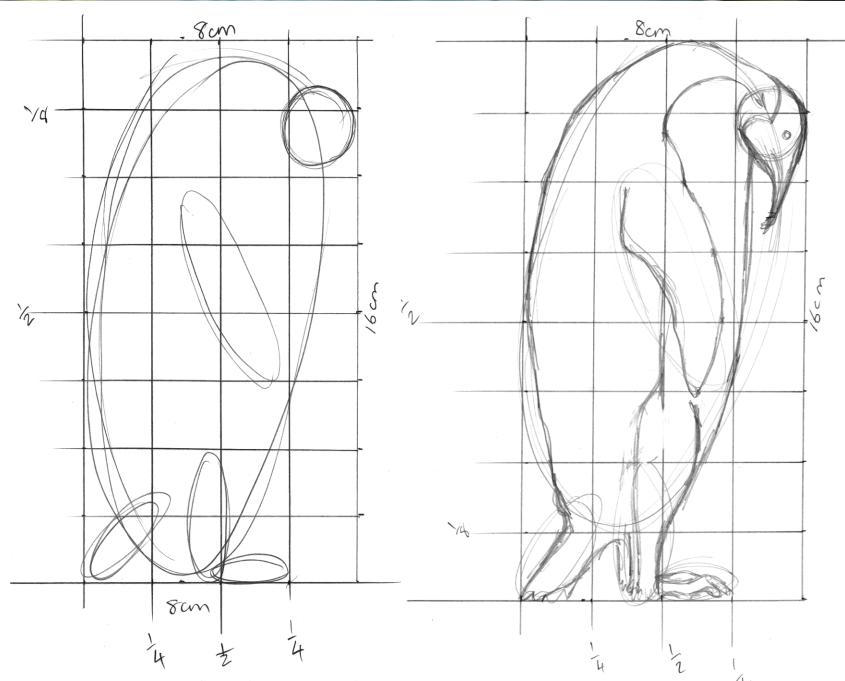
Learning the geography of Antarctica, the coldest, driest, windiest place on Earth.







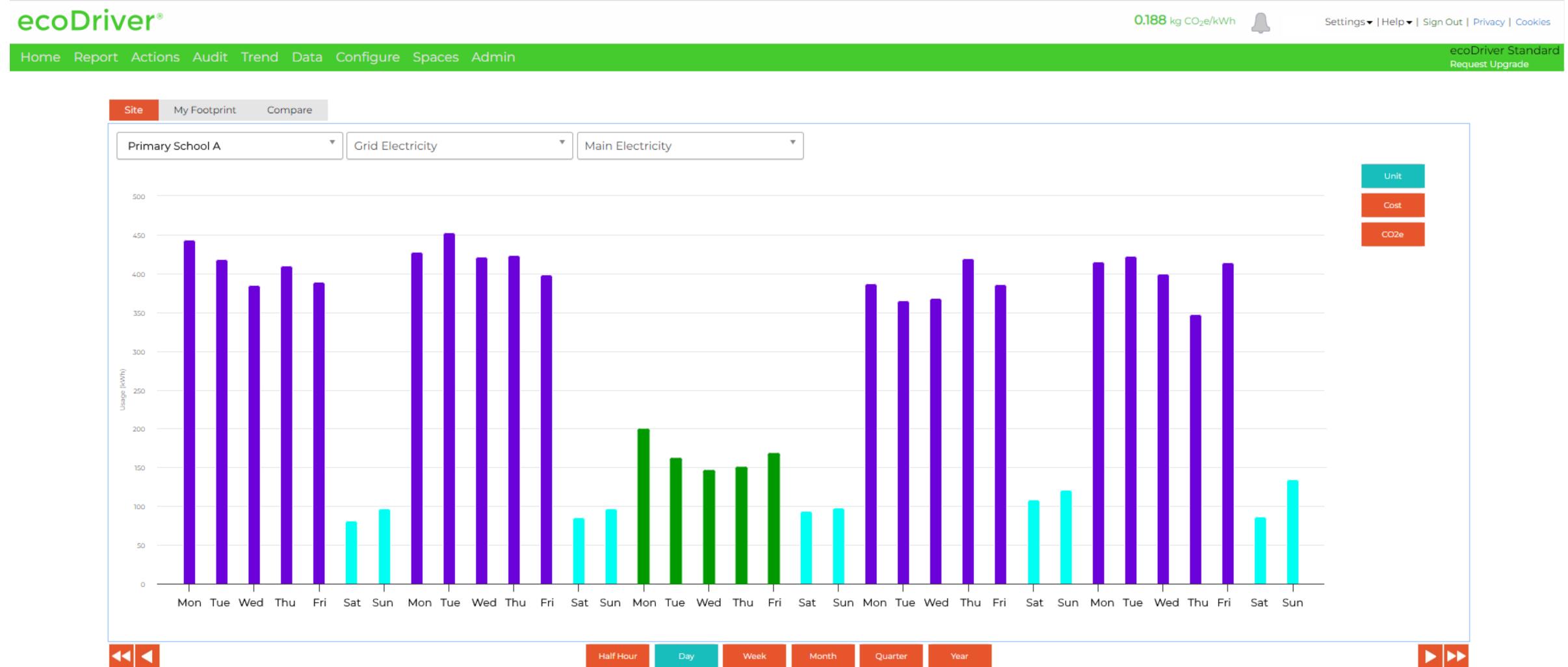




Celebrating the awe and wonder of Antarctica with posters, poems and ice sculptures.



Relating climate change data to school energy use.



How much electricity does your school use each day? What are you using it on? How can you reduce it?

Energy & Climate Change



Monitoring and conserving energy, linked to the DfE's Climate Action Award

YEAR GROUP	ENQUIRY	SUGGESTED TERM	SUSTAINABILITY ACTION	EXPERTISE OR SKILLS TO BE DEVELOPED	SDG
R	What can we learn from each other?	Autumn 2	Learning from each other.	I am beginning to learn how to work with others.	13 CLIMATE ACTION
1	What would it be like to live on an island elsewhere in the world?	Spring 2	Taking actions that help our world.	I am beginning to understand that my actions have consequences.	8 DECENT WORK AND ECONOMIC GROWTH
2	Where are the polar regions and how are they changing?	Spring 1	Identifying three personal energy- saving actions.	I am learning to find ways to save energy and money.	13 CLIMATE ACTION
3	How is planet Earth changing and what can we do about it?	Spring 2	Celebrating Earth Hour with the school community.	I am learning how to engage with others on climate action.	13 CLIMATE ACTION
4	Where does our energy come from and how much do we use?	Spring 1	Running school energy-saving challenges.	I am learning how to measure energy and how to take action to reduce energy consumption.	7 AFFORDABLE AND CLEAN ENERGY
5	How can I be a sustainability champion?	Spring 2	Finding ways to consume less and reuse more.	I am able to take a lead on sustainability issues to help reduce how much we consume.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
6	How are we connected to Antarctica?	Spring 1	Monitoring school energy use to save money and reduce carbon emissions.	I am able to lead on school energy monitoring and to promote the importance of reducing energy use to mitigate climate change.	13 CLIMATE ACTION

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Half-termly planning overview Year 1 - Summer Term 2



Enquiry question: What will we find at the seaside?

Harmony principle: The principle of Interdependence

Sustainability action: Carrying out a beach or local area clean up

Great Work: Organising a seaside day

Partners in learning: RNLI, aquariums, beach conservationists, local museum



	Weekly Questions								
	Week 1 Week 2 Week 3 Week 4 Week 5 Week 5								
	What is so fascinating about shells?	What might you discover in a rockpool?	How do sea creatures depend on the seaside?	How many different birds live at the seaside?	What is harming our beaches?	How can we protect our beaches?			
GEOMETRY	What geometric patterns can we see in a shell?	Which patterns can we see in seaweed?	What is the symmetry of a crab?	Are seagull wings always symmetrical?	What patterns can we see in fish scales?	How can I join points to make a sea star?			
SCIENCE	How many different animals live inside shells?	Is a rockpool an ecosystem?	What fish live in the seas around us?	What do sea birds eat?	Which materials do we find on our beaches?	How do seaside animals' structure help them to survive?			



Half-termly planning overview Year 3 – Autumn Term 1



Enquiry question: How can we identify native trees in autumn?

Harmony principle: The principle of the Cycle

Sustainability action: Growing trees from seed or planting native trees

Great Work: Celebrating National Apple Day (October 21st)

Partners in learning: Children's Forest; The Woodland Trust; The Tree Council



	Weekly Questions							
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6		
	What is a tree and why are trees so important?	How do roots and soil support a tree?	How do trees breathe and what is the effect on the atmosphere?	How do trees absorb sunlight? Why do leaves fall in Autumn?	Why do trees produce seeds?	How can we grow, protect and celebrate trees?		
GEOMETRY	Which tree shapes will I recreate using geometry?	How will I explore patterns in tree roots and shoots to create a pattern?	How will I use my knowledge of 2D shapes to create leaf shapes?	How will I use symmetry to draw the leaves of a native tree?	How can I recreate the five-pointed star in the cross-section of an apple?	How will I create a 3D fractal tree to create a class forest?		
SCIENCE	Is a tree a plant? How do we know?	What makes healthy soil? What makes a plant grow?	How is water absorbed and transported through a plant?	Why are a tree's leaves so important?	How do flowers become fruits?	What can we learn from an apple tree? How do trees work together?		



Half-termly planning overview Year 5 – Autumn Term 1



Enquiry question: What journey does a river take from source to sea?

Harmony principle: The principle of the Cycle

Sustainability action: Finding ways to save water at school and at home

Great Work: Creating a leaflet on saving water OR An art exhibition on the river

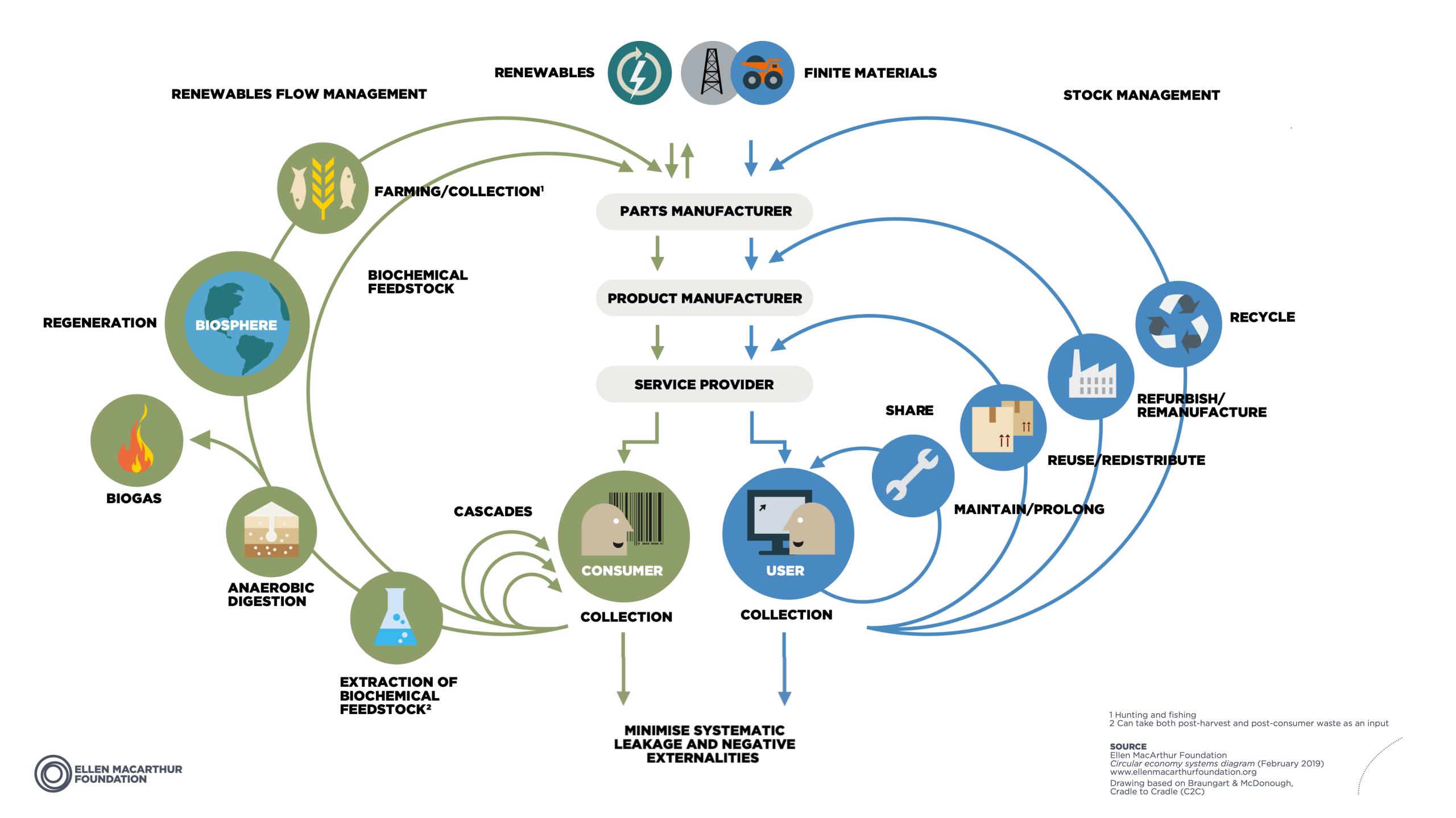
Partners in learning: The Environment Agency; Canal & River Trust; The Rivers Trust



	Weekly Questions							
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6		
	Where does a river begin?	How does a river grow?	How does a river flow?	What role do beavers play in managing river flooding?	How clean is our river water?	What happens when a river reaches the sea?		
GEOMETRY	Can you create a bubble that isn't spherical?	How will I use geometric shapes to represent a stickleback fish?	How does the length of a river compare to the distance from source to sea 'as the crow flies'?	How will I use shape and symmetry to recreate a beaver's face?	How can I use my knowledge of geometry to recreate symmetrical diatoms?	How can I recreate the fractals in river deltas and estuaries?		
SCIENCE	What are the stages of the water cycle?	What are the different states of water and what makes them different?	What is a mixture and what happens when you add different substances to water?	What role do beavers play as a keystone species in maintaining the health of river ecosystems?	How clean is our river water and how do we use filtration to make polluted water clean?	How can we produce 'clean water' by separating a solid from a solution using evaporation?		



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Cycles & Waste



Working out how to recycle everything

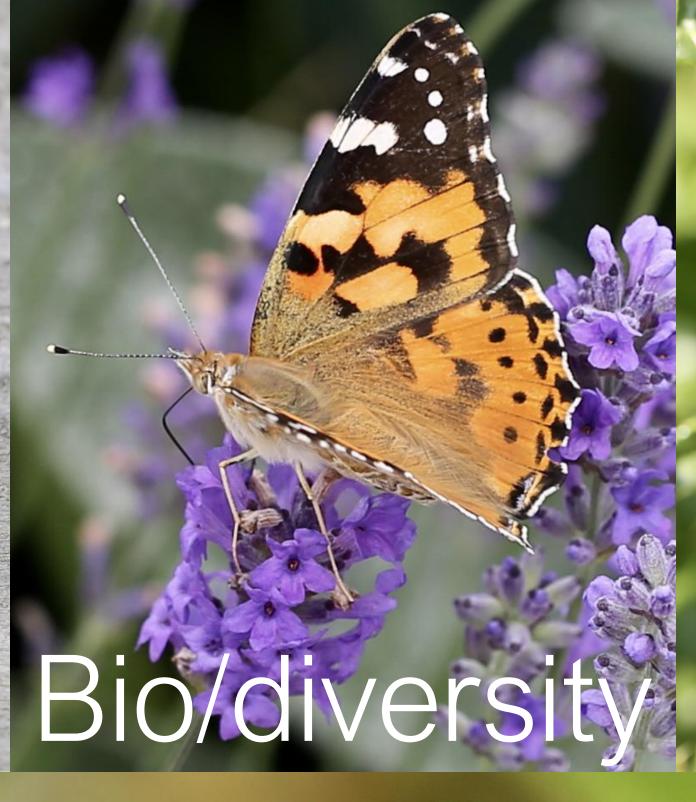
	YEAR GROUP	ENQUIRY	SUGGESTED TERM	SUSTAINABILITY ACTION	EXPERTISE OR SKILLS TO BE DEVELOPED	SDG
	R	What can we grow?	Summer 1	Watering and weeding plants.	I am beginning to understand that plants have a life cycle.	15 LIFE ON LAND
)	1	What will we find at the seaside?	Summer 2	Carrying out a beach or local area clean-up.	I am beginning to learn that the natural world recycles everything but we don't.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	2	Why should we reduce, reuse and recycle?	Spring 2	Learning skills to repair or repurpose something.	I am beginning to learn that we can reduce the amount we waste by using less, reusing what we have and recycling as much as we can.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
_	3	How can we identify native trees in autumn?	Autumn 1	Gathering seeds to grow native trees or planting native trees.	I am learning how leaves, fruits and seeds fall to the ground in autumn to continue the life cycles of trees.	15 LIFE ON LAND
	4	How did the Ancient Egyptians live within the cycles of Nature?	Summer 1	Finding ways to use things more responsibly.	I am learning how buying fewer things and making the most of the things I have produces less waste.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
t	5	What journey does a river take from source to sea?	Autumn 1	Saving water at school and at home.	I am able to explain how the water cycle works and what we can do it conserve water.	6 CLEAN WATER AND SANITATION
	6	Where do migratory animals travel to and from, and why?	Spring 2	Teaching others about cycles of migration, how they are threatened and possible solutions.	I am able to describe the migratory cycles of different species, what is threatening them and how they can be protected.	15 LIFE ON LAND

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DIVERSITY

(Action and phrase - 'It's good to be different')

When we observe the natural world, we can see that its richness lies in its diversity. Life teems with diversity and diversity is a good thing – be it in human form, in the different varieties of a particular species of plant or animal or in the food that we grow and eat. Diversity enriches our lives. It is something not just to value, but to encourage, promote, embrace and celebrate.

Enquiries of learning linked to diversity help us to appreciate that difference and diversity are essential to the health of any system or community.

Throughout the EYFS, children will be introduced to opportunities to explore and develop their initial knowledge and understanding of diversity and the language that enables them to engage in the awe and wonder of our diverse world (for example, when noticing different species of flowers, trees, birds, fish, animals, dinosaurs, strengths, languages etc).

	Making connections in the EYFS	Making connections with Y1 and beyond
Possible learning enquiries and	What makes me special?	What kind of superhero do I want to be?
themes	Links could also be made with themes such as How can we learn from each other? All about me Marvellous Me Our Wonderful World	Which is my favourite wildflower and why?
Key content	UTW: The natural world / senses / different environments / seasonal change PSED: Relationships	NC Science: Animals, including humans / Plants PSHE: Relationships

We have included a possible planning format and a few examples below, that illustrate where connections between nature-rich provision, a child's developing awareness and understanding of Diversity, and the themes and continuous and enhanced provision that they experience, can be made.

Half-termly planning overview Year 1 - Summer Term 1



Enquiry question: Which is my favourite wildflower and why?

Harmony principle: The principle of the Cycle

Sustainability action: Sowing seeds to create native wildflower meadows

Great Work: Sowing and celebrating wildflower meadows

Partners in learning: Local gardeners, gardens and garden centres; the RHS



	Weekly Questions							
	Week 1	Week 5	Week 6					
	What is a wildflower and what are the names of local wildflowers?	What are the parts of a wildflower and what does each part do?	What do wildflowers need to grow and survive?	Why are wildflowers important to a meadow ecosystem?	How can we care for wildflowers?	How can we celebrate our local wildflowers?		
GEOMETRY	What shapes are seeds and why? (drawing seeds using two overlapping circles)	How can circles help me to draw a three- petalled flower?	How can circles help me to draw a four- petalled flower?	How can circles help me to draw a five- petalled flower?	What will help me create a symmetrical butterfly drawing?	How can circles help me to draw a six- petalled flower?		
SCIENCE	What are wildflowers and where do we find them?	What do different plants have in common? How do they differ?	How do plants get water?	Why do plants have flowers? Why are their flowers important to other creatures?	How do butterflies, bees and other insects help plants?	How do flowering plants and trees change through the seasons?		



Half-termly planning overview Year 2 – Summer Term 2



Enquiry question: Why are bees so brilliant?

Harmony principle: The principle of Interdependence

Sustainability action: Creating bee-friendly habitats

Great Work: Making and sharing hexagonal books about bees

Partners in learning: Beekeepers Association; The Bumblebee Conservation Trust



	Weekly Questions								
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6			
	How many different species of bee are there in the UK?	How do the different species of bees work together?	How do flowers help bees?	How do bees help flowers?	Why are bees and other bugs disappearing?	What can we do to make sure bees and other bugs thrive?			
GEOMETRY	What are the different life cycles of the different bee species? (diagram)	What are the parts of a bee's body? (exploring symmetry and proportion)	How can I draw a flower using a circle template? (simple three and four-petalled flowers)	What different shapes are pollen grains when I look at them through a microscope?	How can we make hexagonal pages for a book about bees?	What will make my hexagonal bee book look amazing?			
SCIENCE	What habitats do different bees live in?	What do different bees need to survive and stay healthy?	What food do bees get from flowers and how do they get it?	Why do flowering plants need bees? (pollination)	What things threaten bees? Why are there fewer bees?	What can we do to help bees?			



Half-termly planning overview Year 3 – Summer Term 1



Enquiry question: Why should we protect the biodiversity of the rainforest?

Harmony principle: The principle of Diversity

Sustainability action: Creating leaflets showing how we can protect the rainforest

Great Work: Performing a rainforest soundscape and exhibiting rainforest artwork

Partners in learning: Royal Botanical Gardens, Kew; The Eden Project





	Weekly Questions					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
	Where are the world's rainforests and what are they like?	How many plant species live in the Amazon rainforest?	How many animal species live in the Amazon rainforest?	Why is there such biodiversity in the Amazon rainforest? Why is it important?	Why are rainforests being chopped down and what can we do about it?	What can we learn from indigenous people about living in harmony with the rainforest?
GEOMETRY	How can I use symmetry to recreate a giant rainforest leaf for a class display?	How can circles help me draw an orchid flower?	What symmetrical snakeskin pattern can I design using squared paper?	What will help me to draw a symmetrical rainforest butterfly?	What does a cacao pod look like in cross- section? How can l recreate its geometry?	How can I use rotational symmetry to create a giant waterlily flower design?
SCIENCE	What are the different layers of the rainforest? How do they differ?	Which plants provide food for the animals that live in the rainforest?	Which animals live in the rainforest and how might we group them? (skeletons and shape)	How do living things in the rainforest depend on each other?	How is the rainforest habitat changing? Why is this?	How are we affected by changes to the rainforest? What can we do to protect it?



Biodiversity



Restoring biodiversity locally, nationally and globally, linked to the DfE's Nature Park YEAR GROUP SUGGESTED TERM **SUSTAINABILITY ACTION EXPERTISE OR SKILLS TO BE DEVELOPED** SDG **ENQUIRY** I am beginning to understand that different animals What lives outside our Summer Making habitats for bugs and 15 LIFE ON LAND other animals. 2 need to live in different places in order to survive. classroom? Sowing seeds to create native I am beginning to learn the names of native Which is my favourite Summer 15 LIFE ON LAND wildflowers and to appreciate the importance of wildflower and why? wildflower meadows. restoring wildflower meadows. Creating bee-friendly habitats. I am learning to identify different species of bee Summer Why are bees so 15 LIFE ON LAND and to understand why bees and other insects brilliant? are so important to the health of our ecosystems. Why should we protect Producing leaflets explaining why and I am learning to appreciate the extraordinary Summer 15 LIFE ON LAND the biodiversity of the biodiversity of our rainforests and why we should how we should protect the rainforest. 1 protect them. rainforest? Sharing stories about Nature from What do different I am learning to appreciate indigenous cultures Summer 15 LIFE ON LAND indigenous cultures. indigenous cultures and what they teach us about Nature. teach us? Summer Educating others about the I am able to explain the importance of biodiversity How can we restore 15 LIFE ON LAND importance of our UK habitats. within different UK habitats and why we need to UK habitats back 1 to health? restore these habitats. Finding time to connect with Nature. I am able to articulate my appreciation for the Where do we find 3 GOOD HEALTH AND WELL-BEING Summer beauty in Nature? beauty, awe and wonder of Nature's biodiversity 1 and why it is important to preserve it.

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Half-termly planning overview Year 1 – Spring Term 1



Enquiry question: Where do we live and what makes it special?

Harmony principle: The principle of Adaptation

Sustainability action: Building bird feeders & learning to recognise native birds

Great Work: Putting up bird feeders in the local community

Partners in learning: RSPB, WWT, places of worship, businesses, councils, care homes



	Weekly Questions						
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
	What makes a house a home?	Where is my home and what can I see here? (city/town/village)	What are my favourite places where I live? (buildings, parks)	Who else is part of our community? (birds, animals, people)	What would a child- friendly street look like?	What would our community want in a perfect town?	
GEOMETRY	What shapes and patterns can I find in my home?	What shapes and patterns can I see in the buildings where I live?	How can I represent my favourite place using 2D shapes and patterns?	How can I recognise birds by their shapes and patterns?	How do I draw a bird's body using circles?	How will I make my bird drawing beautiful?	
SCIENCE	Who or what lives near me? (identify and name common animals)	How can we describe different species of native wildlife? (structure of animals)	How can we compare different species of native wildlife? (structure of animals)	What does our native wildlife eat? (omnivores, carnivores, herbivores)	Which animals do we keep as pets in the UK? (structure of animals)	How many native birds can I identify and name?	



Putting up bird feeders in winter and learning about native birds.

Half-termly planning overview Year 2 – Autumn Term 2



Enquiry question: Why should we change the way we travel?

Harmony principle: The principle of Adaptation

Sustainability action: Organising a pollution-free travel event

Great Work: 'Sound of travel' event (soundscape & glockenspiel performance)

Partners in learning: Transport museums; active travel initiatives; Sustrans



	Weekly Questions						
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
	Why is it good to walk?	What's so special about pedal power?	How can we make cars run on clean energy?	What are the pros and cons of train travel?	Why do aeroplanes create so much pollution?	How will I change the way I travel to be more eco-friendly?	
GEOMETRY	How have the shape of our feet changed through evolution?	How many spokes are there on a wheel?	What patterns can we make with tyres?	What are parallel lines and how can I draw them effectively?	How do aeroplanes remind us of birds?	What will my pollution-free travel event logo look like?	
SCIENCE	Why are our feet good for walking?	Why are different parts of a bicycle made from different materials?	How are tyres made? How did John Boyd Dunlop change how they were made?	Why is a train's rigid structure important to help it move?	What was the first aeroplane made from and how has aeroplane design changed? (make simple planes)	Which are the most eco-friendly materials for a vehicle?	



Half-termly planning overview Year 3 – Spring Term 1



Enquiry question: How did the Romans adapt to life in Britain?

Harmony principle: The principle of Adaptation

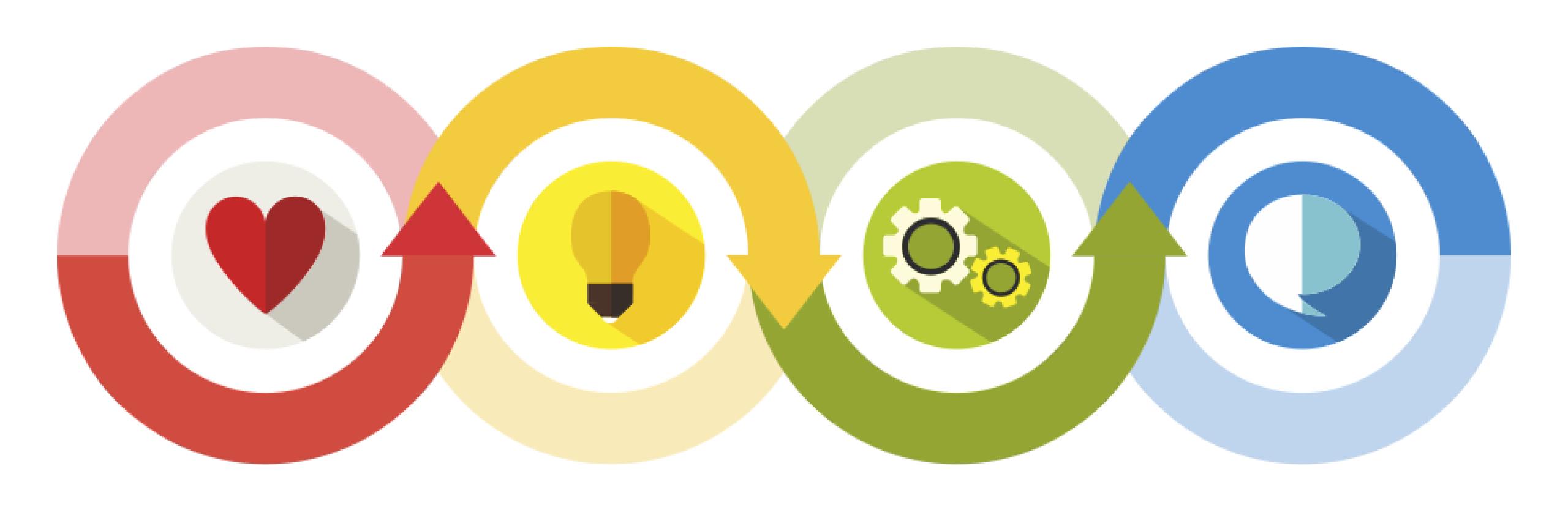
Sustainability action: Carrying out a Design for Change project

Great Work: Creating a year group mosaic

Partners in learning: Mosaicists; Fishbourne Roman Palace



	Weekly Questions						
	Week 1	Week 2	Week 3	Week 3 Week 4	Week 5	Week 6	
	What was life like in Britain before the Romans invaded?	Why was the Roman army so successful?	How did life change after the Romans arrived?	Where did the Romans settle in Britain?	How do we know what Roman life was like?	Was it a good thing that the Romans invaded Britain?	
GEOMETRY	How will I use circles and semi circles to recreate a Pelta?	How will I use geometry to complete a design for a Roman shield?	How will I use geometry to draw a Solomon knot?	How will I use geometry to create a simple guilloche of two interweaving strands?	How will I use symmetry to create a floral vault pattern?	Which geometric shapes and patterns will I incorporate in a Roman floor mosaic?	
HISTORY	How did the Roman Empire grow and how far did it reach?	What strategies did the Roman army use?	Where did the Romans go when they arrived in Britain?	What can archaeological sites tell us about the Romans?	What questions can we ask about Roman artefacts?	How did the Romans benefit life in Britain?	



FEEL IMAGINE DO SHARE

Design for Change

Our young people want a better balance between learning about the past and how they will need to adapt the way they live into the future.

YEAR GROUP **ENQUIRY**

Adaptation for the future

SUSTAINABILITY ACTION

SUGGESTED

TERM



Learning from Nature and the past how to create a better future

Adapting learning to a local context

Designing a simple invention I am beginning to learn how inventions from the past R What makes an Spring RESPONSIBLE CONSUMPTION AND PRODUCTION have helped us and what kind of inventions could help us amazing invention? to make a difference. in the future. COI am beginning to learn about what lives in my local area. Where do we live **Spring** Building bird feeders and learning to recognise native birds. and what makes it 11 SUSTAINABLE CITIES AND COMMUNITIES special? Why should we Organising a pollution-free I am learning the pros and cons of different types of Autumn change the way 13 CLIMATE ACTION transport and how they might change in the future. travel event. we travel? How did the Romans **Spring** Making a positive change in our I am learning to collaborate with others to achieve a goal. adapt to life in Britain? community. 1 12 RESPONSIBLE CONSUMPTION AND PRODUCTION Working with local craft makers How can we prepare **Autumn** I am learning to appreciate local skills and crafts. 12 RESPONSIBLE CONSUMPTION AND PRODUCTIO for a Tudor banquet? and food producers. Who were the Designing a clean energy form I am able to plan a project that promotes clean energy Spring Vikings and where forms of travel and transport in our community. of transport. 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE did they go? How would I like to Leading a project to bring about I am becoming a leader who can create positive change. Summer 5 GENDER EQUALITY positive change. make history?

EXPERTISE OR SKILLS TO BE DEVELOPED

SDG

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Half-termly planning overview Year 3 – Summer Term 2



Enquiry question: Where does our food come from?

Harmony principle: The principle of Interdependence

Sustainability action: Working with the school kitchen to prepare local, seasonal food

Great Work: Creating a seasonal food guide

Partners in learning: Local allotment growers, food producers and farmers, RGS





	Weekly Questions						
	Week 1 Week 2		Week 3	Week 4	Week 5	Week 6	
	What foods do we eat each day?	Where do our eggs come from?	Where does our milk come from?	Which fruits and vegetables are in season when?	What do food labels tell us?	What should I eat to be healthy and sustainable?	
GEOMETRY	How will I use geometry to represent different types of grains and seeds?	How will I use geometry to draw the shape of an egg?	How will I use geometry to recreate the leaves of a three- and four- leaf clover?	How can I recreate the cross-section symmetry of a strawberry?	How can I recreate the cross-section symmetry of a banana?	How can I recreate the pattern of seeds in a tomato cross-section?	
SCIENCE	What do herb plants need to grow healthily? What do I need to be healthy?	What nutrients do eggs provide to support our muscle growth?	How does milk keep our bones healthy?	Why are fruit and vegetables important for our bodies?	What high energy foods are good for when we exercise?	What should I eat to be healthy?	



Half-termly planning overview Year 4 - Autumn Term 1



Enquiry question: How did the Anglo-Saxons farm and how was it different from today?

Harmony principle: The principle of Interdependence

Sustainability action: Creating a guide about farming in the past, today and in the future

Great Work: Organising a harvest festival of food and thanksgiving

Partners in learning: Beacon Farms, Sustainable Food Trust, local farmers and food growers



	Weekly Questions						
	Week 1	Week 2	Week 3	Week 3 Week 4		Week 6	
	How did the Anglo- Saxons successfully invade Britain?	How did the Anglo- Saxons create a strong sense of comnmunity?	What was a day in the life of a child like in an Anglo-Saxon community?	How did an Anglo-Saxon mixed farm work?	What was the impact of the Anglo-Saxons on the environment?	How did the Anglo- Saxon era end?	
GEOMETRY	How will I use geometry to represent a 3-fold Celtic knot?	How will I use rotational symmetry to create a Dara knot?	What patterns will inspire my Anglo-Saxon brooch?	How can I use symmetry to create a helmet design?	How can I draw an Anglo-Saxon pattern using a grid?	What shapes will I include in a Celtic cross?	
HISTORY	Why did the Anglo- Saxons come to Britain? Why did they settle in village communities?	What was it like to work during the Anglo-Saxon era? How does this compare to today?	What can we learn from different sources about life in an Anglo- Saxon village?	What was life like on an Anglo-Saxon farm and how does it compare to farming today?	What materials did the Anglo-Saxons use for building, farming and jewellery making?	What were the key events of the Battle of Hastings?	

Anglo-Saxon food recipes with organic ingredients.







ANGLO-SAXON CAKE RECIPE

WITH THE HELP OF A GROWN-UP, MAKE THESE DELICIOUS ANGLO-SAXON HONEY, OAT AND SPICE CAKES!

DID YOU KNOW?

The Anglo-Saxons
were a mix of tribes
from Germany,
Denmark and the
Netherlands

Half-termly planning overview Year 6 - Autumn Term 1



Enquiry question: What would it be like to live during wartime?

Harmony principle: The principle of Adaptation

Sustainability action: Harvesting locally grown vegetables to make seasonal soup

Great Work: Making seasonal soups for elders at Harvest Festival

Partners in learning: Local allotment growers, school kitchen, WW2 veterans





	Weekly Questions						
	Week 1	Week 2	Week 3	Week 3 Week 4		Week 6	
	Who was involved in World War 2?	What was it like to live in Germany during WW2?	What would it have been like to be evacuated?	What was the Home Guard? What did ARP wardens do?	What happened in the Blitz?	Why was home-grown food so important in WW2?	
GEOMETRY	How can I recreate the Union Jack flag?	How can I draw the Jewish six-pointed Star of David?	What do I notice about my fingerprint patterns for my ID card?	How can I use circles to create the vesica shape of an eye?	How will I use geometry to draw the window of Coventry Cathedral?	What patterns do I notice in the cross sections of a red cabbage?	
HISTORY	How and why did WW2 break out? Who was involved?	What happened to Jewish people during WW2 and why?	Why did children have to evacuate to the country?	What was the role of an ARP warden during WW2?	What was the Blitz and how much damage did it cause?	What impact did the 'Dig for Victory' campaign have on the war effort?	



Food & Farming



	YEAR GROUP	ENQUIRY	SUGGESTED TERM	SUSTAINABILITY ACTION	EXPERTISE OR SKILLS TO BE DEVELOPED	SDG
	R	What are the cycles of life on a farm?	Spring 2	Planting seeds to grow food.	I am beginning to understand the different cycles of life on a farm.	15 LIFE ON LAND
,	1	What kind of superhero do I want to be?	Autumn 1	Exploring diversity in local, seasonal fruits.	I am beginning to appreciate the tastes, smells and textures of different foods.	5 GENDER EQUALITY
	2	What can I discover about different plants?	Summer 1	Growing food at school and at home.	I am learning how to grow food.	15 LIFE ON LAND
	3	Where does our food come from?	Summer 2	Preparing a meal using local, seasonal ingredients.	I am learning where my food comes from and which foods are grown in the UK.	3 GOOD HEALTH AND WELL-BEING
	4	How did the Anglo- Saxons farm and how was it different from today?	Autumn 1	Creating a guide about farming in the past, today and in the future.	I am learning the pros and cons of different farming systems and how these systems have changed over time.	15 LIFE ON LAND
ect	5	What can we learn from the Ancient Greeks about the order of Nature?	Summer 2	Preparing a seasonal, locally grown Greek salad.	I am able to grow good food in harmony with Nature and know which foods grow when.	3 GOOD HEALTH AND WELL-BEING
	6	What would it be like to live in wartime?	Autumn 1	Harvesting locally grown vegetables to make seasonal soup.	I am able to explain the benefits of growing food in season and how we can reduce the amount of food we throw away.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION

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HEALTH

Action and phrase - 'Looking after ourselves and our world'

Nature is, for the most part, healthy and when we are in Nature, we feel well. Nature rejuvenates and heals us. It restores our spirit. It captures our imagination. It is a constant source of inspiration. When we tune in to Nature in all its elements, we come alive.

We know that our human health is inextricably linked to that of the natural world. Much meaning in learning comes from a deep understanding of how Nature works. The more we can provide experiences that take children beyond the classroom and help them to connect with Nature, the more their wellbeing is likely to improve. Enquiries of learning linked to health teach us how to live healthy lives. They remind us of the need for balance and the link between our individual health and the health of our world.

Throughout the EYFS, children are introduced to opportunities to explore and develop their initial knowledge and understanding about health and the language that enables them to engage in the awe and wonder of a healthy world (for example, exploring when we feel well, when we successfully grow a plant from a seed, when we eat good food and feel well because of it).

	Making connections in the EYFS	Making connections with Y1 and beyond
Possible enquiries and themes	What can we grow?	What stories could our toys and games tell?
	Links could also be made with themes such as Why should we look after ourselves and each other? My world People who help us Healthy Me	What do I need to be healthy?
Key content	UTW: The natural world / senses / seasonal change	Science: Plants / Animals including humans /
	PSED: Health and wellbeing	Everyday materials
	PD: Play and physical health	PSHE: Health and wellbeing / Relationships

We have included a possible planning format and a few examples below, which illustrate where connections between nature-rich provision, a child's developing awareness and understanding of Health, and the themes and continuous and enhanced provision that they experience, can be made.

Half-termly planning overview Year 2 - Autumn Term 1



Enquiry question: What do we need to be healthy?

Harmony principle: The principle of Health

Sustainability action: Sourcing and harvesting seasonal food to make a healthy meal

Great Work: Preparing and sharing a healthy, seasonal meal

Partners in learning: Local farmers or allotment growers, Florence Nightingale Museum



	Weekly Questions						
	Week 1	Week 2	Week 3	Week 3 Week 4		Week 6	
	What can my body do?	What helps me to feel well?	Why is it good to eat seasonal fruit and vegetables?	Which foods help me to stay healthy?	Why should I keep myself clean?	What responsibilities do I have to keep myself feeling healthy?	
GEOMETRY	Where can I find symmetry on my body?	What are the proportions of my body? (Vitruvian man)	What shapes do we find in the cross-section of an apple?	What patterns can I see when I slice fruit and vegetables?	Where do we see patterns in Nature?	What patterns can I find in the proportions of my hands?	
SCIENCE	What do humans and other animals need to stay alive?	What is the difference between being alive and being healthy?	What different types of food are there?	What do our bodies need from the food we eat and why?	What is hygiene and why is it important?	What changes can I make to be healthier?	



Half-termly planning overview Year 5 – Autumn Term 2



Enquiry question: How can we ensure our oceans stay amazing?

Harmony principle: The principle of Interdependence

Sustainability action: Reducing plastic pollution to keep our oceans healthy

Great Work: Sharing 'TED Talks' on reducing plastic pollution in the oceans

Partners in learning: BBC Wild Isles Oceans, Surfers Against Sewage, MSC, fishmongers



	Weekly Questions						
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
	What living things do we find in the seas around the UK? How is all marine life interdependent?		Why are starfish so What does important to ocean ecosystems? What does 'sustainable fishing' mean?		How does plastic pollution threaten the health of our oceans?	What can we do to protect our oceans?	
GEOMETRY	How can I draw a wave?	How can geometry help me recreate the form of different sea shells?	What sort of symmetry can I find in different species of starfish?	How can I construct a vesica and use it to help me sketch fish?	How do you draw the face of a seal?	How can I construct a Fibonacci spiral to draw a nautilus shell?	
SCIENCE	How can we classify living things in the seas around the UK?	How can we classify living things in an ocean food chain? How are they interdependent?	How do starfish help to maintain healthy ecosystems?	What are the properties of plastic? Why do we use plastic so much?	What is the solubility of different materials in our oceans?	What is the best material to use to build a surfboard?	



Half-termly planning overview Year 6 – Autumn Term 2



Enquiry question: How can we learn to live in peace?

Harmony principle: The principle of Oneness

Sustainability action: Making time for quiet and reflection each day

Great Work: Organising a poetry recital about war and peace

Partners in learning: UNICEF



	Weekly Questions						
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	
	How did WW2 end?	Why do we wear poppies to remember people who fought and died in war?	Why did the WW1 poets conscientiously object to war?	What will I include in my own 'peace poem'?	Why do people still fight today?	How can we learn to live in peace?	
GEOMETRY	How will I use shape to recreate the image of an olive branch?	What does the poppy represent and how can I create one?	How will I use geometry to recreate the CND Symbol?	How will I use rotational symmetry to recreate the triskele symbol?	How will I use geometry to create a universal symbol of love?	Which shapes and patterns will I incorporate in my own symbol of peace?	
SCIENCE	How does blood flow around our body? When do we feel in a state of flow?	How are nutrients and water transported around the body? Why is water so important to our body's wellbeing?	How does exercise affect our heart rate? How can we calm down our heart rate?	Which foods make us feel well?	What is the impact of drugs and alcohol on our body?	Why is sleep and rest an essential part of our wellbeing?	



Health & Wellbeing



Valuing the importance of health to us and to the natural world

YEAR GROUP	ENQUIRY	SUGGESTED TERM	SUSTAINABILITY ACTION	EXPERTISE OR SKILLS TO BE DEVELOPED	SDG
R	Why should we look after ourselves and each other?	Autumn 1	Creating an environment in which everyone is happy and well.	I am beginning to learn how to look after myself and others.	11 SUSTAINABLE CITTE AND COMMUNITIES
1	What stories could our toys and games tell?	Autumn 2	Making time to be in Nature.	I am beginning to understand the importance of spending time in Nature to my health.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
2	What do I need to be healthy?	Autumn 1	Sourcing and harvesting seasonal food to make a healthy meal.	I am learning what I need to be healthy.	3 GOOD HEALTH AND WELL-BEING
3	How did life change from the Stone Age to the Iron Age?	Autumn 2	Taking part in regular physical activity.	I am developing my understanding of the importance of a healthy lifestyle.	15 LIFE ON LAND
4	What are the cycles of our solar system?	Spring 2	Leading an Earth Hour event for the school community.	I am learning how solar energy can help create a healthy, clean energy future.	13 CLIMATE ACTION
5	How can we ensure our oceans stay amazing?	Autumn 2	Reducing plastic pollution to keep our oceans healthy.	I am able to explain the role we can play in ensuring our oceans stay healthy.	14 LIFE BELOW WATER
6	How can we learn to live in peace?	Autumn 2	Making time for quiet and reflection each day.	I am able to appreciate the importance of quiet time and reflection for my wellbeing.	PEACE, JUSTICE AND STRONG INSTITUTIONS

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Year 1

Enquiry overviews

What kind of superhero do I want to be?

What stories could our toys and games tell?

Where do we live and what makes it special?

What would it be like to live on an island elsewhere in the world?

Which is my favourite wildflower and why?

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What will we find at the seaside?

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Year 1 enquiry overviews





Half-termly planning overview Year 1 – Spring Term 1



Enquiry question: Where do we live and what makes it special?

Harmony principle: The principle of Adaptation

Sustainability action: Building bird feeders & learning to recognise native birds

Great Work: Putting up bird feeders in the local community

Partners in learning: RSPB, WWT, places of worship, businesses, councils, care homes



	Weekly Questions						
	Week 1 Week 2		Week 3 Week 4		Week 5	Week 6	
	What makes a house a home?	Where is my home and what can I see here? (city/town/village)	What are my favourite places where I live? (buildings, parks)	favourite places community? where I live? (birds, animals,		What would our community want in a perfect town?	
GEOMETRY	What shapes and patterns can I find in my home?	What shapes and patterns can I see in the buildings where I live?	How can I represent my favourite place using 2D shapes and patterns?	How can I recognise birds by their shapes and patterns?	How do I draw a bird's body using circles?	How will I make my bird drawing beautiful?	
SCIENCE	Who or what lives near me? (identify and name common animals)	How can we describe different species of native wildlife? (structure of animals)	How can we compare different species of native wildlife? (structure of animals)	What does our native wildlife eat? (omnivores, carnivores, herbivores)	Which animals do we keep as pets in the UK? (structure of animals)	How many native birds can I identify and name?	
ENGLISH	How do directions help us? (features of instructions)	What do I see on my way to school? (using 'landmarks' to write instructions)	What will I include in a report about where I live? (non-fiction texts)	What information about our community will I add to my report? (non-fiction texts)	What would I like to change in my community? (letter writing)	How would I describe my perfect town? (poetry)	
GPS FOCUS	When do I need to use capital letters? (place names)	How can time adverbials make my writing clearer?	How do I know where to use question marks?	How can I use the suffixes -ed and -es to change a root word?	Where do I need to use finger spaces and why?	How can I extend a sentence using 'and'?	
MATHS	What numbers do we live at? (numbers to 100)	at? where we live? can I recognise in my		How can I describe how a bird feeds its young? (sequencing events) How can we order and compare our pets? (length and height)		Which was the most popular bird feeder? (calculate amounts eaten)	
GEOGRAPHY	Where do I live and what is near to it? (street, town, county, country)	What makes our town special? (human and physical features)	What famous landmarks can be found in our capital cities?	What important buildings are in our town and why are they so special?	What can I find out about the most important building in our town?	How will I create a map of our perfect town?	
DT	How do birds get their food in winter? (explore bird feeder designs)	Which birds live in our local area and how should this affect a bird feeder design?	Which natural materials will I use in my design?	What techniques will I use to make my bird feeder?	How do birds' beaks affect how they eat? (evaluate feeder in use)	How would I improve my design? (link to data in maths)	



Year 1

National Curriculum coverage



National Curriculum coverage – Year 1



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
ENQUIRY	What kind of superhero do I want to be?	What stories could our toys and games tell?	Where do we live and what makes it special?	What would it be like to live on an island elsewhere in the world?	Which is my favourite wildflower and why?	What will we find at the seaside?
HARMONY PRINCIPLE	The principle of Diversity	The principle of Health	The principle of Adaptation	The principle of Oneness	The principle of the Cycle	The principle of Interdependence
PRINCIPLE QUESTIONS	How are we all different and how are we the same? Why is it important that we are different? What can you do to be a superhero?	Which toys and games do we most enjoy and why? Are our toys and games better than those from long ago? Why is playing in Nature good for our health?	What do you think is special about where you live? Why is it important to look after your local area? What changes can we make to improve where we live?	What is an island? How is life on other islands different from our lives? What does it mean to be part of one world?	What is the life cycle of a wildflower? Which wildflowers grow where I live? Why should we let wildflowers grow?	What might we find at the seaside? What human actions affect life at the seaside? What can we do to look after seaside ecosystems?
SUSTAINABILITY THEME	Food & Farming	Health & Wellbeing	Adaptation for the Future	Energy & Climate Change	Biodiversity	Cycles & Waste
LINK TO SDGs	5 – Gender equality and equal opportunity	12 – Responsible consumption and production	11 – Sustainable cities and communities	8 – Decent work and economic growth	15 – Life on land	12 - Responsible consumption and production
ENGLISH GENRES	Sentence writing; Descriptive writing; Lists	Descriptive sentences; Story writing and performing; Instruction writing	Instructions; Reports; Letter writing; Poetry	Developing questions; Fact finding; Writing stories; Poetry	Sentence writing; Shape poetry; Narratives; Booklets	Information pages; Riddles; Recounts; Story telling



Year 4

Enquiry overviews

How did the Anglo-Saxons farm and how was this different How can we prepare for a Tudor banquet?

Where does our energy come from and how much do we use?

What are the cycles of our Solar System?

How did the Ancient Egyptians live in harmony with Nature?

What do different indigenous cultures teach us?



Year 4 enquiry overviews





Half-termly planning overview Year 4 – Autumn Term 2



Enquiry question: How can we prepare for a Tudor banquet?

Harmony principle: The principle of Adaptation

Sustainability action: Appreciating local skills and crafts

Great Work: Organising a Tudor banquet

Partners in learning: Weald & Downland Museum; Local history partners



	Weekly Questions						
	Week 1 Week 2		Week 3 Week 4		Week 5	Week 6	
	How did the Tudor period begin?	What were Tudor homes like and how were they different from today?	What kind of king and husband was Henry VIII?	How did people entertain themselves during Tudor times? How do we entertain ourselves today?	What food did the Tudors eat at a banquet? How is this different from our food?	What will we prepare for our Tudor banquet?	
GEOMETRY	How will we use geometry to make a Tudor Rose?	How will we create patterns using bricks?	How will we use proportion for our Tudor portraits?	How will we use symmetry to complete the shape of a stag's antlers?	How will we use geometry to design a Tudor knot garden?	What patterns will we include in a stained glass window for a Tudor banquet hall?	
SCIENCE	How well would sounds have travelled across the battlefield?	How did traditional Tudor instruments produce sound?	How will we change the pitch of a wind instrument?	How will I make a tuned lyre?	How can I change the volume of a percussion instrument?	How well can we hear our songs from different distances?	
ENGLISH	How will I retell the gory details of the Battle of Bosworth Field?	Which Tudor characters will I interview?	What will I include in my poem about Henry VIII to read at the banquet?	How will I record the fun I had with a Tudor family on my time travels?	How will I bring a banquet to life through my setting description?	How will I improve my setting description of a banquet?	
GPS FOCUS	How will I group my ideas into paragraphs?	Which questions will I ask to learn the most about living in Tudor England?	How will I use rich vocabulary to describe Henry VIII?	Which language will we use to describe characters and settings within a Tudor time?	How will I use a choose nouns or pronouns to aid cohesion and avoid repetition?	Which adverbs and prepositions will I use to express time and cause?	
MATHS	How will I solve time related worded problems to order Tudor events chronologically?	How will I use perimeter to calculate how many bricks I need to build a Tudor house?	How much material is required to dress Henry VIII and his wives?	How will I measure the distance I roll a hoop?	What quantities of vegetables will we need to make soup?	Which 2D shapes can we use to make a stained-glass window?	
HISTORY	What happened at the Battle of Bosworth Field?	How will I use secondary sources to learn about homes in Tudor England?	What kind of king and husband was Henry VIII?	How did people entertain themselves during Tudor times? How is it different from today?	What food did the Tudors eat at a banquet? How is this different from our food?	What will we prepare for our Tudor banquet??	
ART AND DESIGN	What tools will I use to carve a Tudor Rose in clay tile?	How will I follow instructions to draw a 3D Tudor House?	Who will I choose to create a Tudor portrait?	What colours will I choose to sew my Tudor coin purse?	How will we use clay to make a Tudor pot for soup?	What patterns will I use to decorate my Tudor Pomander for the banquet?	



Year 4

National Curriculum coverage



National Curriculum coverage – Year 4



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
ENQUIRY	How did the Anglo-Saxons farm and how was this different from today?	How can we prepare for a Tudor banquet?	Where does our energy come from and how much do we use?	What are the cycles of our Solar System?	How did the Ancient Egyptians live in harmony with Nature?	What do different indigenous cultures teach us?
HARMONY	The principle of Interdependence	The principle of Adaptation	The principle of Health	The principle of the Cycle	The principle of Oneness	The principle of Diversity
PRINCIPLE QUESTIONS	How did the Anglo-Saxons build community and work together? How did the Anglo-Saxons farm and how was this different from today? What can we learn from how the Anglo-Saxons produced food?	Why did the Tudors use local materials? How has life changed since Tudor times? How might we need to adapt in the future?	What is clean energy? Why should we measure our energy use? What are the advantages and disadvantages of different energy sources?	Why does our Solar System work in cycles? What cycles do we experience throughout our lives? What are the benefits of solar energy?	Why was the River Nile so important to the Ancient Egyptians? Why did Ancient Egyptians eat locally grown food and use locally sourced materials? What can we learn from the Ancient Egyptians about living in a way that is at one with the local environment?	What are some of the ways that cultures differ? What can we learn from the stories of different indigenous cultures? What can we learn from the way different indigenous cultures view Nature?
SUSTAINABILITY THEME	Food & Farming	Adaptation for the Future	Energy & Climate Change	Cycles & Waste	Healthy & Wellbeing	Biodiversity
LINK TO SDGs	15 – Life on land	12 - Responsible consumption and production	7 – Affordable and clean energy 13 – Climate action	13 - Climate action	12 - Responsible consumption and production	15 - Life on land

Sustainability in Science - pilot project running now!

03 - Learning from Nature

Year 2

The third key element of a Harmony approach to learning is learning from Nature, which is linked to progression in understanding of Harmony principles. This aspect of learning supports the development of children's understanding of what it means to live sustainably.

Year 1

EYFS

The six lessons in this pack and the wider enquiry they are part of are underpinned by the principle of the Cycle; they build on children's prior learning in the EYFS, and prepare them for their learning in Years 2 to 6.

Year 4

Year 5

The children's progression in their understanding of the principle of the Cycle and how this helps us to think and live more sustainably, through their exploration of six enquiries of learning, is shown below.

Year 6

	LIFS	redi 1	redi 2	redi 5	redi 4	redi 5	redi o
ENQUIRY	their initial knowledge _	Which is my favourite wildflower and why?	Why should we reduce, reuse and recycle?	How can we identify native trees in autumn?	What are the cycles of our solar system?	What journey does a river take from source to sea?	Where do migratory animals travel to and from and why?
PROGRESSION: CONCEPT OF THE CYCLE		What is the life cycle of a wild flowering plant?	What do I throw away and where does it go?	What is the life cycle of a tree?	How does our solar system work in cycles?	How does water work in cycles?	How is migration cyclical?
THINKING SUSTAINABLY		Why should we let wildflowers grow?	How can thinking in cycles help us to live more sustainably?	How do trees sustain themselves?	What are the benefits of solar energy?	How do our actions impact the water cycle?	Why is migration a cycle in Nature but not for humans?
THINKING SUSTAINABLY VOCABULARY	life cycle season pattern rhythm routine	growth rest cycle seeds habitat	waste recycle reuse reduce consume	abundance decline restore regenerate self-sustain decay	cyclical sustainable pollution fuel	responsibility finite resources solution replicate	agency impact circular economy conserve

Year 3

Working Scientifically: Asking relevant questions and using different types of scientific enquiries to answer them

Setting up simple practical enquiries, comparative and fair

Using results to draw simple conclusions,

Scientific enquiry type: Observing over time

Vocabulary relating to animals including humans, working scientifically and thinking sustainably is highlighted within the unit introduction.

Gather images of different food types (see main lesson plan)

Print copies of Resource 1A

Prints copies of the Woodland Trust's foraging lists for September and October (enough for one between two)

Support children by providing labels for each liquid.

Challenge the children to write their own method.

DESIGN AND TECHNOLOGY: Make oat and honey cakes with dried fruit or a fruit salad with local berries.

Explore the video 'How to care for the teeth of children aged 7+' by Dr Ranj and the British Society of Paediatric Dentists.

Did the Anglo-Saxons eat sugar? How will I investigate the effect of sugar on tooth decay?

What do we already know?

Begin the lesson by recapping the children's prior learning about Nature by asking them: What do humans need to stay healthy? which they will have explored in the Y2 enquiry What do I need to be healthy? and Y3 enquiry Where does our food come from? As a class, watch the BBC Bitesize video What do humans need to

stay healthy? to facilitate this discussion.

Show the children a copy of the Eat Well Plate and focus on the foods containing sugars and fats. Ask them: Why should we only eat small amounts of these foods? What are the problems if we eat too much of them?

What are we learning today?

Develop the children's learning about Nature by exploring the presence of sugar within our diets today compared to the diets of those living during the Anglo-Saxon period.

Ask the children: What is sugar and where does it come from? What is the difference between foods that we call natural, processed and ultra processed? These definitions may support this discussion:

Natural: a food from a plant or animal that we eat with very little being changed or added to it e.g. whole piece of fruit, vegetables, seeds, nuts, fish or meat

Processed: a food that has been altered from its natural state. Examples include pre-packed slices of mango, pasta or any other foods that are made using a small number of easily recognisable ingredients.

Ultra processed: Examples include many types of sliced bread and other foods that are made using ingredients you wouldn't have in your kitchen cupboards, such as colouring, flavourings, emulsifiers and preservatives. These may also contain higher-than-usual levels of salt or sugar.

Ask the children to think of foods that would fit into each category or display images of different foods on the interactive whiteboard to guide the discussion. Ask them: Which foods contain natural sugars and which foods contain processed sugars? What do we know about the Anglo-Saxon diet so far? Where did the Anglo-Saxons get their food from? What do we eat and where do we get our food from?

On the interactive whiteboard, show the children images of foods that would have formed part of an Anglo-Saxon meal, such as bread, oats, carrots, parsnips, onions, apples and plums, milk and pork.

Explain that almost all Anglo-Saxons were farmers. They ate fresh food that they grew themselves and were mostly vegetarian. They were beekeepers and reared some livestock - other meat came from hunting and fishing. Ask the children: Did any of the foods they ate

Was the sugar in their food natural, processed or ultra processed? Draw out the fact that the Anglo-Saxon diet was very low in sugar; the sugar they did eat occurred naturally in fruits, vegetables and honey.

How are we learning today?

Having discussed the presence of sugar in both our diet and in the Anglo-Saxon diet, the children will now investigate the impact of different sugars on our teeth. They could use sugars that were present during the Anglo-Saxon period to compare the impact of natural sugars and processed sugars that are often found in our food and drinks today.

The element of learning in Nature in this lesson can take place in the school grounds, in a woodland or in a local green space. In pairs, the children forage for foods which contain natural sugars as the Anglo-Saxons would have done. This can be supported using the Woodland Trust's foraging lists for September and October.

TEACHER TIP: Before going on a foraging walk in the school grounds or local area, instruct the children not to put anything in their mouths unless instructed to do so, not to touch any funghi that they find etc.

Provide the children with a copy of Resource 1A. Explain that they will work in groups to set up an investigation to observe the effects of sugar on teeth. They will observe over time the changes that occur to an eggshell (this is similar in composition to tooth enamel) placed in different liquids: one liquid will contain processed sugars (e.g. shop-bought fruit juice), one will contain ultra processed sugars (e.g. cola) and two will natural sugars (juice from berries). The fourth liquid will be water, as a

TIME TO EXPLAIN: Children write up their observations. Ask them: What happened? Why? What does this experiment show us about the effect of sugar on our teeth over time?

When I compare the eggshell that was to the eggshell that was in I notice

Enquiry question: How did the Anglo-Saxons farm and how was it different from today?

Harmony principle: The principle of Interdependence

Describe the simple functions of the How would an Anglo-Saxon diet basic parts of the digestive system in humans affect our health compared to a modern diet?

What do we already know?

Begin the lesson by recapping the children's prior learning about Nature by asking the children: What is a balanced diet? Which foods do we need to eat to stay healthy? What do they give our bodies? They will have learned about this during the Year 2 learning enquiry What do I need to stay healthy? and the Year 3 learning enquiry What would it be like to live as a hunter-gatherer?.

Review the main food groups (fruits and vegetables, starchy carbohydrates, protein, dairy and fats) and discuss how each group helps the body. Create a table on the interactive whiteboard like the one below and populate this with foods and what they give us:

FOOD GROUP EXAMPLES BENEFITS apples, bananas, Fruits and vegetables oranges, strawberries, carrots, broccoli, courgette, leeks Contain vitamins and fibre which help digestion and keep us healthy Starchy carbohydrates pasta, rice, oats, potatoes and sweet potatoes or noodles, bread Give us energy, contain fibre meat, fish and eggs, nuts, beans, lentils, peas Helps us grow and build muscle Dairy milk, yoghurt, cheese Contain calcium for strong bones and teeth

Fats butter, olive oil, avocados, nuts, seeds, oily fish Gives us energy, helps us to absorb some vitamins, helps brain development and cell function

What are we learning today?

Remind the children that through the process of digestion, all animals absorb vitamins and minerals into their body, as well as things like sugars and fatty acids. Our food also provides our bodies with fibre, which we need to keep our digestive systems healthy and which also helps prevent us becoming ill. To assess the children's understanding, ask them: Do you think the Anglo-Saxons had more fibre in their diet than we do today? How could we increase the amount of fibre in our diet? e.g. by choosing brown or granary bread instead of white; eating more vegetables; snacking on nuts instead of

TEACHER TIP: On average, in the UK we eat only two thirds of the recommended daily intake of fibre and some studies show that only around a tenth of the population has enough fibre in their diet. The <u>NHS website</u> has advice on eating a more fibre-rich diet.

Recap the results of the eggshell investigation

in Lesson 1. Ask the children: What did we learn about the effect of eating too much sugar on our teeth? Why else shouldn't we eat too much sugar? Did the Anglo-Saxon diet have more or less sugar in it than our diet today? How could we reduce the amount of sugar that we eat

Provide copies of Resource 6B for children to read and discuss in groups. Ask the children: Did the Anglo-Saxons eat ultra processed foods? Why was this?

Looking at Resource 6C together, draw out the Principle of Health by asking: Did the Anglo-Saxons have the same choice of foods? Which food might have been produced in a healthier way during the Stone Age and why? Which foods weren't available and why not? Are we lucky to have this choice today? What are the pros and cons of eating some of the foods available today?

How are we learning today?

Working in pairs, the children draw on one paper TIME TO EXPLAIN: plate their favourite meal, and on the other plate a typical Anglo-Saxon meal. They stick each plate on a sheet of A3 paper, then explain how healthy they think each meal is, giving reasons for their thinking. How could they make each meal healthier or more balanced? Give the children resource 6A to support writing their explanations.

Give the children time to present their meals to the class and explain their thinking.

As a class, discuss that some foods taste very good even if they aren't very good for our health and while it's still OK to eat them, we just need to be careful that we don't eat too much of them or eat them too often.

What have we learned today?

Discuss with the children what they think was healthy about the Anglo-Saxon diet. Draw out the fact that they ate lots of seasonal vegetables, fruit and other plants, which meant their diet was high in fibre and vitamins. Their diet was also low in sugar and fat - and ultraprocessed food didn't exist! They would also have grown their food organically, so they didn't balanced diet than the Anglo-Saxons would use any chemicals on their crops or on the soil

they grew their crops in.

Move on to ask the children: What is healthy about our diets today? Discuss with the children that most of us have access to a much greater diversity of fresh food today and a better understanding of the benefits of a have done. This means we can make healthy

Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat

Working Scientifically: Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

Scientific enquiry type: Research

Vocabulary relating to Animals including humans, working scientifically and thinking sustainably is highlighted within the unit introduction.

Resources: Paper plates A3 sheets of paper

> Resource 6B: Information sheet on typical Anglo-Saxon meals

Resource 6C: Typical foods available

Resource 6A: Children use word bank to support their thinking and annotate paper plates.

> Children to work in small groups to plan and compare their Anglo Saxon and modern meal

Watch videoclip 'Anglo Saxon Food and Farming'

DESIGN AND TECHNOLOGY: What techniques will I use to make Anglo-Saxon meal?



Developing Leadership for Sustainability in School

YR - Looking after our classroom and outdoor areas

Y1 - Composting fruit cores and peel after break times

Y2 - Beekeeping

Y3 - Reducing and recycling waste

Y4 - Food waste monitoring

Y5 - Water monitoring

Y6 - Energy monitoring - ecodriver.co.uk





The Harmony Project

Putting Sustainability at the Heart of the Curriculum

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