

Planet B — Curriculum Driver

Year 5/6 Spring Term

Topic Question: What can we do to ensure there is enough for everyone?

Linked people of study: David Attenborough, Greta Thunberg

Linked texts: Floodland by Marcus Sedgwick
Ruin - animated film

Topic Composite/Finale: Presentation in assembly on living things or fact files made into a book

Prior Learning Topic: (Y3/4) Extreme earth

Visit: Kresen Kernow, Cornwall energy recovery centre



History

Intent: Children will understand the changes from the Stone Age to the present day. They will learn how the transition from late Neolithic hunter-gatherers to early farmers influenced our relationship with the environment.

Hooks from previous learning: Extreme earth (LSK2)

Skills and Knowledge Components Focus

Use a variety of reliable sources to gain a deeper understanding of history. Compare historical sources and suggest the validity of these (include the growth of 'fake news')

Begin to use questions to understand significant events.

Language specific to topic (e.g. solar, hydro)

Talk in depth about the theme in relation to other historical events and the impact of these, linking to modern day.

Understand the methods of historical enquiry, including how it is used to make historical claims.

Identify significant events, make connections, draw contrast and analyse trends.

Discuss the increasing relevance of information available from social media - and the influence of 'fake news'

Sticky Knowledge:

Know that humans were once hunter gatherers

We became settlers when we learnt how to grow crops and domesticate animals

These changes allowed us to settle and build villages, towns and cities.

The infrastructure required for these urban developments placed new demands upon our design and engineering skills

Growing crops and specialising in manufacture allowed us more trading opportunities.

Competition for these resources may sometimes have contributed to warfare between tribes, states, nations and their armies.

Key Vocabulary:

Settlement, resources, electricity, generation, power, Gigawatt (GW), coal, nuclear, renewable, non-renewable, solar power, wind power, biomass, import, export, food miles, conservation, carbon footprint, global warming, poverty, famine.

Subject Composite:

Children will host a debate about whether activism is a suitable strategy to help prevent climate change

Impact:

Children will understand how our planet is being affected by increased industrialisation. They will consider how, as humans, we collectively every day make decisions about how we live- and the impact on our surroundings.

Geography

Intent: We will investigate changes to physical geography, including: climate zones, biomes, and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle. We will link these changes to human geography: the distribution of natural resources including energy, food, minerals and water.

Hooks from old learning: Extreme earth (LKS2), Out of this World (KS1)

Skills, and Knowledge Components Focus

Study environments and compare similarities and differences in a range of some features.

Know meaning of Biomes and vegetation belts.

Know about climate change. Know about plate tectonics.

Know where energy comes from.

Know about the water cycle and natural resources (where they come from).

Sticky Knowledge:

Identify important features of a settlement site.

Rank human needs by importance to me.

Tell you the main stages of electricity distribution.

Use an atlas to locate a given place.

Label a map using a key.

Identify what makes an energy source renewable.

Find the country or town of origin on a food label.

List some foods that are produced in the UK.

Tell you what food miles are.

Identify ways to reduce food wastage.

Tell you that food shortages are a global problem.

Tell you about the causes of food shortages in a country in South or Central America

Key Vocabulary: latitude, longitude, Equator, Northern and Southern hemisphere, Tropics, Arctic and Antarctic, Prime/ Greenwich Meridian and Time zones, water cycle, evaporation, precipitation, condensation

Subject Composite: Wall display illustrating major changes linked to climate change

Impact: Children will appreciate how change is occurring throughout the world; and how everyone is affected in many different ways.

Science

Intent: Children will be able to describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals

In addition, they will identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

Hooks from previous learning: Superhumans incl bodies and classification (LKS2)

Skills and Knowledge Components Focus

Living things and their habitats

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.

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics

Animals including humans

Describe the changes as humans develop to old age

Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood

Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

Describe the ways in which nutrients and water are transported within animals, including humans

Sticky Knowledge:

Some living things contain both the male and female sex cells

In others they contain either the male or female sex cell

Most plants can't fertilise themselves

Amphibians (such as frogs) and birds are hatched from eggs

Humans develop inside their mothers

Key Vocabulary: Movement, Respiration, Sensitivity, Nutrition, Excretion, Reproduction, Growth, organism, microorganism, vertebrate, invertebrate, mammal, amphibian, fish, insect, bird

Subject Composite: : Invite parents in for a science workshop to share what we have learned

Impact: Children will have a better understanding of how different groups within the animal kingdom, ourselves included, reproduce, develop and grow.

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Art and Design

Intent:

Children develop skills in drawing and watercolour to create their own botanical illustrations.

Hooks from old learning: continue previous learning about sketching techniques and mixing colours for painting, along with brush technique (Stone Age to Bronze Age LKS2)

Skills and Knowledge Components Focus

Experiment with working on different surfaces.
Different textures (laminating, modroc, collage.)

Acrylic paints. Oil pastels. Charcoal

Use Art to express an emotion. Why have they chosen the materials and techniques that they have?

Use drawing techniques to introduce perspective.
(Drawing from above and below, near/far.)

Continue to experiment with the techniques of different artists.

Practice skills to create different surfaces.

Begin to build up a portfolio of their work.

Use the work of a famous artist as a stimulus for their own work.
Use other artists work as a basis for critique.

Research and develop the techniques of other artists to use in own work.

Be introduced to the work of great designers through history.

Continue to critique their own work and begin to build a portfolio of work about which they can talk confidently.

Sticky Knowledge:

Use at least three tones (and good lighting)

Establish a focal point for your drawing

Use a variety of brushes for painting

Build up colour from light to dark

Add texture with veins and hairs

Mix greens (even if they look unnatural)

Be methodical - create clear sections

Avoid black paint

Key Vocabulary:

Sketch, outline, faint, subject, observation, tint, detail, fine, botanical, outdoor

Subject Composite: A collection of botanical illustrations of local plants.

Impact: Children will be able to compare botanical illustrations and recognise the main features of this type of art. They will be able to imitate some of these in their own work.

Design Technology

Intent: Children have the necessary skills to be able to design and manufacture a scale model seat from green wood.

Hooks from old learning: observing the properties and peeling green wood during outdoor learning, catapults (Invaders and settlers LKS2)

Skills and Knowledge Components Focus:

Design innovative, functional, appealing products aimed at particular individuals or groups.

Develop a set of criteria, based on research, to aid design process.

Communicate ideas through oral and ICT presentations.

Adapt designs, where necessary, based on design feedback.

Select from and use a wide range of specialist tools and equipment safely and accurately.

Use specialist equipment for a specific purpose safely and accurately.

Sticky Knowledge:

Green wood is wood that has been freshly cut i.e. not dried or seasoned

Different woods have different moisture contents

It still has high levels of moisture or sap, which allows it to be cut more easily

Green wood will shrink as it dries - this must be allowed for at the design stage

Shrinkage can be utilised to 'grip' around a peg or tenon

Key Vocabulary: green wood, sharpen, shave horse, axe, drawknife, scale, drill, diameter, stable, tenon

Subject Composite: Children to design and make a model seat from green wood

Impact: Children will feel confident to use tools to work with green wood.

Computing

Intent: Learners will learn how to create short videos by working in pairs or groups. As they progress through this unit, they will be exposed to topic-based language and develop the skills of capturing, editing, and manipulating video. Learners are guided with step-by-step support to take their idea from conception to completion. At the conclusion of the unit, learners have the opportunity to reflect on and assess their progress in creating a video. Learners will be introduced to creating websites for a chosen purpose. Learners identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process, learners pay specific attention to copyright and fair use of media, the aesthetics of the site, and navigation paths.

Hooks from old learning: previous work creating animations (Y3/4)

Skills and Knowledge Components Focus

I can recognise that connected digital devices can allow us to access shared files stored online

I can send information over the internet in different ways

I can explain that the internet allows different media to be shared

Sticky Knowledge:

Use a recording device and a computer to make a video

Capture video

Create special effects, Edit and crop sections of video

Create a new blank web page, Set the style of text on a web page

Add web pages to a Website, Insert hyperlinks between pages

To insert hyperlinks to another site

Key Vocabulary:

Video, Media, Storyboard, Script, Scene, Camera angle, Export

Subject Composite:

Learners will use a storyboard to explore a variety of filming techniques, which they will then use in their own video project. They will evaluate the effectiveness of these techniques before offering feedback on others' work

Impact:

This unit progresses learners' knowledge and understanding of creating media by guiding them systematically through the process involved in creating a video. The unit builds on the Year 4 unit 'Photo editing' where composition is introduced and the Year 3 unit 'Stop-frame animation' where learners explored some of the features of video production.

Music

Intent: Children will further develop their listening and appraising skills. They will play the ukulele and glockenspiel and be able to compose and improvise.

Hooks from old learning: (Y3/4) To build on previously learnt skills from the charanga scheme.

Skills and Knowledge Components Focus

- Show control, phrasing and expression in singing.
- Perform in solo and ensemble contexts.
- Improvise independently with increasing aural memory.
- Compose and perform melodies using four or five notes.
- Know how pulse, rhythm fit together.
- Use a range of words to describe music (eg. duration, timbre, pitch, dynamics, tempo, texture, structure, beat, rhythm, silence, melody, chord, staccato, legato, crescendo).
- Use these words to identify strengths and weaknesses in own and others' music.
- Describe different purposes of music in history/ traditions/ other cultures.

Key Vocabulary:

Appraising, Bossa Nova, syncopation, structure, Swing, tune/head, note values, note names, Big bands, improvise, pulse, rhythm, pitch, tempo, dynamics, riff, hook, solo

Subject Composite:

Blues - Do Anything but throw it away (Sing up).

What's it worth Planet Earth?

Save our Planet

Songwriting - Save the planet

Use garage band

Charanga creative apps - percussion writer

Impact: Children are confident to play an instrument in front of an audience.

Trips/Visitors: Royal Cornwall Museum

