



What impact has mining had on Cornwall?

Year 5 Autumn 2023

Linked texts: Cornish Tales, The White horse of Zennor, The Mermaid of Zennor, How was that built?, Cogheart, Marvellous Machines

Topic composite: Pasty making, Geevor Tin mine visit

Trips/ Visits: Great flat lode walk, Geevor Tin mine, Women of Cornwall workshops (Writers block)

Wild Tribe Link: Second half term (Art)



History

Intent: Children continue to develop a knowledge of local history and understand the impact this has had on the area they live. Children devise questions and look at a range of sources to gain a deeper understanding of historical events and historical figures.

Skills, and Knowledge Components Focus
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.
A detailed study of a particular famous person and their historical legacy form at least two different points of view.

Sticky Knowledge
I can plot key events in Cornish Mining onto a scaled timeline
Mining is often thought of as a male dominated job but women and children played their part in the mining process too. Known as Bal maidens these woman would help to separate the tin from other mined substances.
By 1839 around 7000 children worked in the Cornish mines.
Cornish tin has been traded across Britain for approximately 4000 years.
Parts of the mining landscape in Cornwall are World Heritage Sites.
Humphry Davy invented the miner's safety lamp and I can talk about its impact.
The events of the Levant mining disaster impacted on safety developments in mining.

Key Vocabulary: mining, engine, shaft, engine house, bronze age, extraction, Bal maiden, Tin, ore, knocker, piskie, production, Davy lamp, World Heritage Site, drill, King Edward Mine, Great Flat Lode, Levant mine, Humphry Davy, legacy

Subject Composite: Children to produce an ebook showcasing their work from across the curriculum.

Impact: Children are able to talk about the local history of Troon and Cornwall. The have some secure facts that they know about mining and are keen to learn more about local history. Children are inspired to learn more and share their knowledge with family and friends when visiting places in Cornwall. Children are aware of current mining opportunities across Cornwall and beyond.



Science - Forces

Intent: Children will build on their knowledge of forces from Year 3. They will develop their use of scientific vocabulary and expand on their ability to work scientifically through enquiries.

Skills, and Knowledge Components Focus
Identify the effects of air resistance, water resistance and friction that act between moving surfaces.
Explain that unsupported objects fall towards the Earth because of gravity acting between the Earth and the falling object.
Recognise that some mechanisms, including leavers, pulleys and gears, allow a smaller force to have a greater effect.
Use relevant scientific language and illustrations to discuss, communicate and justify scientific ideas.
Plan different scientific enquiries to answer questions, including recognising and controlling variables where necessary.
Report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results.
Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.

Sticky Knowledge:
Friction can stop or slow a moving object, it produces heat and can cause some materials to wear away.
Air resistance is a friction force between air and a moving object., The greater the surface area the greater the force. Parachutes have a large surface area so they have a greater air resistance.
I can explain how to work scientifically and discuss plans, predictions, results, conclusions
I know gravity is a non-contact force that pulls things to the centre of the earth (or other planets).
Heavier objects do not fall to the ground quicker than lighter objects.
Levers, pulley and gears are mechanisms that allow for a smaller force to give a greater effect.

Key vocabulary: force, contact force, friction, motion, air resistance, drag, parachute, independent variable, dependent variable, controlled variable, air resistance, streamline, repeatability, precision, surface area, anomalous result, water resistance, gravity, weight, lever, gear, pulley, machine

Subject composite: Children will plan and take part in a range of investigations and will explain forces and their uses.

Impact: Children will have a clear understand of contact and non-contact forces and explain the impact of these and how we use there during our everyday lives. They will develop their skills in working scientifically.



Science - Space

Intent: Children understand our solar system and can explain the movement of the Earth and Moon and how this forms our seasons, day/night and year.

Skills and knowledge components focus
Describe the Sun, Earth and Moon as approximately spherical bodies
Describe the movement of the Earth and other planets relative to the Sun in the Solar System
Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.
Describe the movement of the Moon relative to the earth.
Identify scientific evidence that has been used to support or refute ideas or arguments
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Sticky Knowledge:
The Sun, Earth and Moon and other planets are approximately spherical bodies
The solar system is a collection of planets, moons and the Sun
The Sun is a star which releases heat and light
The Sun is the centre of our solar system
There are eight planets which orbit the Sun
The Earth takes 365 days to complete a full orbit of the sun
Other planets take different times to complete a full orbit around the sun
The Earth's axis is an imaginary line. The earth rotates once around it's axis in 24 hours.

Key vocabulary: solar system, planets, spherical, stars, sun, orbit, surface, appearance, model, gravity, gravitational pull, axis, rotational, north pole, south pole, moon, satellite

Subject composite: Children take part in a range of practical activities which help to model the key learning in this topic and enable them to give clear explanations.

Impact: Children can talk about in scientific terms our year, seasons, night/day in relation to our solar system.



Art

Intent: Children are introduced to the idea that artists don't just work in studios. Children explore ways of working which involve different materials and go out and explore local landscapes.

Skills, and Knowledge
Explore the work of artists who respond to to land and city scapes in various ways using mixed media combinations.
Explore the way in which artists use all their senses to capture the spirit of a place.
Respond to artists work.
Use sketchbooks to think creatively, explore and experiment; reflecting on the work produced.
Develop the use of pencils, oil pastels and water colour

Sticky knowledge
I know that Vanessa Gardiner is a landscape artist.
I know that artists can work outside to explore landscapes.
I can use a range of media for effect including inc, pastels and water colour.
I understand that when using watercolour you can create a wash which can be used when painting a sky, sea.
I know that when using watercolour you can apply wet paint onto dry paint to colour mix.

Key vocabulary: landscape, cityscape, wax resist, watercolour, ink, graphite, wash, wet and dry colour mixing, mixed media

Subject composite: Children to create their own landscape art pieces using mixed media. Inspired by visits to the great flat lode.

Impact: Children will have a greater understanding of using mixed media and using what they see as inspiration.



Design and Technology

Intent: Children build upon their knowledge of a balanced diet and have a good understanding of how food helps our body to function. They gain further skills in food preparation and cookery and can design and make their own Cornish pasty.

Skills, and Knowledge Components Focus
Understand which foods will provide a healthy, varied and balanced diet.
Understand which food groups help our bodies to function.
·Understand why we can only grow some foods in our country and why we need to get some foods from other countries.
·Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
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Research existing products and develop design criteria.
Create detailed design criteria for a product.
Communicate ideas by developing sketches, labelled diagrams and notes to support their design.
Communicate ideas through discussion, presentation and peer critique.
Select, name and use appropriate tools and equipment safely and accurately.
Suggest ways of improving their own and others' work, using their criteria
Evaluate their ideas, prototypes and products against a specific set of criteria.

Sticky Knowledge:
I know the 5 principles for healthy eating is; eat lots of fruit and veg, eat more fibre, eat less saturated fat, eat less sugar, eat less salt.
I know to use the bridge and claw cutting technique when using a knife. This is when you arch your hand to create a bridge when holding food and hold with a claw like grip.
I can use technical vocabulary when writing a recipe e.g. rubbing, season

Key Vocabulary: pasty, savoury, varied, balanced, dairy, protein, fibre, vitamins, minerals, carbohydrates, flavour, texture, appearance, crimping, rubbing in, diced, glaze, elastic, dough, beat, season, rest, preheat, ridge and claw cutting technique
Subject Composite: Children to design, make and evaluate a Cornish pasty.

Impact: Children are aware of their bodies and how food helps it to function. Children know that it is important to have a balanced diet and think carefully about the food choices they make. Children are able to independently prepare simple snacks for themselves and are ware of the safety precautions they need to take. Children know the history of the pasty and are able to follow a simple recipe to create their own.