

Curriculum Driver

What was life like as a Troon Tinner?

Year 5/6 Autumn Term

Linked people of study: William Murdock, Richard Trevithick, Tom Trevorrow, Humphrey Davy, John Humphrey Spender

Linked texts: Kresen Kernow resources

Linked Music: Charanga Unit 1 and 2

Trips/Visitors: King Edward mine/Great Flat Lode, Geevor Mine, Kresen Kernow, Prima Bakery/local bakery

Topic Composite/Finale: PowerPoint Presentation/EBook



Geography

Intent: Children to have a good understanding of how to use an ordnance survey map and are able to apply this when on a fieldtrip to the Great Flat Lode.

Skills, and Knowledge

Components Focus

- Study environments and compare similarities and differences in a range of some features stated above.
- Use the eight points of a compass.
- Use fieldwork to support studies.
- Use six figure grid references.

Sticky Knowledge:

I know...

- The 4 main points of a compass are North, South, East and West. To get the 8 point compass; always use the North or South point first e.g. North West.
- The scale line on a map shows the distance on a map compared to the distance in real life e.g. 1cm = 1km
- Ratio can be shown in different ways on a map you need to check this when measuring distances.
- Maps are divided into grid squares these help to locate places/objects on a map easier. Each grid square is given a number or letter.
- In order to help me remember how to find a grid reference I can use the phrase 'along the corridor and up the stairs.'

Key Vocabulary: areal photograph, topographical maps, urban, rural, population, north, south, east, west, north east, north west, South east, south west compass, grid reference,

Subject Composite: Children to use their enhanced map skills during a fieldtrip to the Great Flat Lode.

Impact: Children will be equipped to use an ordnance survey map and will feel inspired to use this knowledge as they get older e.g. Duke of Edinburgh award. Children will take pleasure from reading maps and identifying places they know or have visited.

Science

Intent: Children will build upon their knowledge of light acquired in lower key stage 2. They will be able to explain how they are able to see objects and explain how shadows are formed. Children will build on their knowledge of electricity in Lower Key Stage 2 and can now compare variations in how components function. Children will be able to use recognised symbols when representing a simple circuit in a diagram.

Skills, and Knowledge Components Focus

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- Use recognised symbols when representing a simple circuit in a diagram
- Create models which use series circuits, switches, bulbs, buzzers and motors. - DT objective)
- Understand and use a range of electrical systems in their products, such as series circuits, incorporating switches, bulbs, buzzers and motors. - DT objective

- Recognise that light appears to travel in straight lines
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

Sticky Knowledge:

I know...

- An electrical circuit is a path or line through which an electrical current flows.
- When changes are made to circuits, components can function differently.
- When batteries are cells are added or of a higher voltage the brightness of bulbs and the volume of buzzers will increase.
- When more lamps are added to a simple circuit they will be dimmer than if there was one lamps. This is because the electricity is shared between the two bulbs.
- I know the standard symbols for different components and can use these when drawing electrical circuits.

- Light is a form of energy that makes it possible for us to see.
- light is reflected from a light source and travels into the pupil in our eyes.
- When it is dark our pupils go larger in order to let more light in so that we can see better. In bright lights, our pupils go smaller.
- When an object passes in front of a ray of light, the light can be blocked creating a shadow.
- Light rays usually travel in straight lines but when they pass from one material to another they can be forced to bend and change direction this is called refraction.
- Natural light is made up of all the colours of the rainbow which when mixed together appears white..
- Reflection is when light bounces off a surface changing the direction of a ray of light.

Key Vocabulary: Davy lamp, light, spectrum, rainbow, eyes, light source, reflection, refraction, pupil, shadow, elongate, translucent, prism, transparent, opaque, Sir Isaac Newton, switch, lamp, voltage, motor, battery, buzzer, cell, voltmeter, ammeter, wire, circuit, component, crocodile clip, symbol, conductor, current, filament,

Subject Composite: Children to design and create a modern day lamp that would be used in the mines. **Impact:** Children are able to articulate their scientific understanding and show excitement during investigations. Children are keen to ask questions and experiment with different electric components and light sources in a safe environment.

History

Intent: Children continue to develop a knowledge of local history. 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

- Shows some understanding and talks with some clarity about the impact of historical events.
- Use a variety of reliable sources to gain a deeper understanding of historical event
- Compare historical sources and suggest the validity of these subject.
- Begin to use questions to understand significant events.
- A detailed study of a particular famous person and their historical legacy.

Sticky Knowledge:

I know...

- Mining is the extraction of materials from the earth.
- The main function of an engine house was to provide the framework for the engine it contained.
- Tin mining began early on in the Bronze Age.
- Mining was considered important enough that miners had the right to look for Tin in any open land.
- 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.

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,

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. They 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.

Computing

Intent: Children to build on their prior knowledge of using ICT to present information. Children are able to use more complex features of presentation software.

Skills, and Knowledge Components Focus

- Use a range of digital devices to combine different software and present data and information.
- Use technology to accomplish challenging goals.
- Use a range of programmes, systems and content to accomplish challenging goals.

Sticky Knowledge:

I know...

- A presentation is a collection of individual slides that contain information on a topic.
- A hyperlink - also known as a link or web link, a hyperlink is an icon, graphic or text in a document that links to another file or object.
- Transition is the change from one image in a slide show to the next.
- 'audio' is sound when recorded, transmitted, or reproduced.
- Hyperlinks are icons, graphics or texts in a document that links to another file or object.

Key Vocabulary: PowerPoint, Hyperlink, transition slides, text, audio, graphic, documents, files, website, format, insert

Subject Composite: Children to create a PowerPoint presentation on an aspect of their mining topic. Children to present these to an audience of parents/carers and governors.

Impact: Children are confident to use ICT as a tool for presenting information. They are able to use this skill to support them in their future learning and into adult life.

DT

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 carbohydrates are the main source of energy for the body.
- I know that fats are a secondary source of energy but must be consumed in moderation.
- I know fibre is vital for the body as it absorbs water and helps excretion.
- I know protein is needed for growth and the building and repair of body cells.
- I know dairy is good source of muscle building protein, vitamins and minerals.
- 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, pre-heat, 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 aware 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.

Art

Intent: Children will learn about the work of different artists and experiment working in a similar style. Children will use their knowledge of mining and ask questions about and predict what the artist was trying to portray.

Skills, and Knowledge Components Focus

- Use drawing techniques to introduce perspective. (Drawing from above and below, near/far.)
- Use viewfinders and perspective techniques in composition.
- Continue to experiment with the techniques of different artists.
- Practice skills to create different surfaces.
- Apply paint to show textures.
- Different textures and consistencies of paint
- 'Limited palette' work. Working with one colour and developing work using tints and shades.
- Begin to build up a portfolio of their work.

Sticky Knowledge:

I know...

- Norman Cornish was one of the most celebrated mining painters of the last century.
- Lowry is famous for painting scenes of life in industrial districts of North West England and often used a limited palette.
- Perspective is showing a 3D objects' height, width, depth and position on a 2D surface.

Key Vocabulary:

John Humphrey Spender
Norman Cornish, L.S Lowry, perspective, horizon, linear, parallel, converge, horizon, vanishing point, construction lines, viewfinders, palette, tints, shades, texture, portfolio

Subject Composite: Children to use drawing techniques to create a drawing in the style of a famous artist studied in this unit.

Impact: Children will have a range of different drawing techniques and will be able to produce a piece of art from a different perspective. Children will enjoy looking at work from another artist and will be curious about the artists work. They will ask questions and give opinions. Children will be inspired by different artists and will be keen to add to their own collection of art work.