ROSE WOOD ENQUIRY DRIVEN CURRICULUM

ROSE WOOD ACADEMY

How did metal make Middlesbrough mighty?
Year 3 Spring Term

Rose Wood Academy: Enquiry Driven Learning Overview

Year Group: Y3	**Enquiry Question: How did metal make Middlesbrough mighty?**	**Term**: Spring

Context:
The concept of change and cause and effect are starting to be understood and this is the perfect opportunity to develop this further by studying a key period of history and the significance of the local area as part of this. Children can also develop their understanding of sources of evidence by visiting local historic sites and be historians using real local evidence. The work allows local fieldwork and local area geography study. It builds on their knowledge of how towns and civilisations develop and how rivers are at the heart of this. This provides important knowledge that will be revisited during the study of Ancient Egypt.

Prior Learning (Direct Pathway)

History –
The concepts of change and cause & effect that drive innovation are revisited from previous topics on the Great Exhibition of 1851, the Great Fire of London, toys, James Cook and powerful women.
Key advances during the Stone Age to Iron Age topic are built on to inform the new learning, including linking these to advances made during the industrial revolution of the 1800s in the UK.
Children will build on their understanding of the uses of iron from their Iron Age topic.

Geography –

- Know the four countries of the UK and their capital cities
- Know, name and locate the continents and oceans of the world
- Know the 4 compass points
- Name and locate Middlesbrough on a map
- Understand the difference between a human and physical feature
- Know the seas around the UK
- Understand what a settlement is and why there are located where they are
- Know that different parts of the world have different climates
- Seasonal weather patterns

Prior Learning (Indirect Pathway)

Science –
Children will use their understanding of how materials can be changed to recognise that ironstone can be used to make iron and steel.

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Enquiry Question

How did metal make Middlesbrough mighty?

As scientists we will investigate the properties of different metals including magnetism.

Content on Direct Pathway

Our project this term is, **'How did metal make Middlesbrough mighty?**' The children will read the book, 'The Iron Man' by Ted Hughes. We will be using this text to explore how important iron and steel was to Middlesbrough, the local area and the wider impact it had on the world. We will also look the impact of the industrial revolution on land use and see how Middlesbrough changed and grew as ironstone was discovered in the Cleveland hills. We will plot the journey of Teesside Steel to Australia and other parts of the globe, as well as carrying out a local geography study of Middlesbrough and places of interest. As historians, we will research the history of Middlesbrough and its foundations as a steel town and world-renowned port. We will work as engineers to design and make bridge systems using pneumatics.

Pupils will write diary entries in the role of Hogarth, the boy in 'The Iron Man.'

Write a script for a documentary about the rise of Middlesbrough.

Enquiry Outcomes

Green screen documentary documenting the rise of Middlesbrough. This will be shared with parents on Class Dojo.

Rose Wood Academy: Enquiry Driven Learning Overview

Unit Title: How did metal make Middlesbrough mighty?

Y3 Spring 1 Spring 2	**End Point - The aim of this unit is for pupils to**: • Understand that they live in Middlesbrough, which is a town in England. • Know that Middlesbrough is in the North East Region of the UK • Know how the discovery of iron ore changed the town from a small village to a large industrial town • Know how the town grew and spread to accommodate the influx of workers **End of unit outcome:** Green screen documentary documenting the rise of Middlesbrough.

Links:

Text – The Iron Man by Ted Hughes
Geography – study of the local area and changes to Coulby Newham over time

Prior Learning:

- Know the four countries of the UK and their capital cities
- Know, name and locate the continents and oceans of the world
- Know the 4 compass points
- Name and locate Middlesbrough on a map
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Key Concepts of the unit:

Physical Features: Understand that physical features are natural features in an environment. Understand that physical features can include: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather and volcanoes.

Environment: Understand that the environment is everything around us. It is the natural world of land, sea, air, plants and animals. Understand that living things are affected by their environment and can also affect the environment they live in. Environments consist of both human and physical features.

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Human Features: Understand that human features are features in an environment that have been made by people. Understand that human features can include: city, town, village, factory, farm, house, office, port, harbour and shop

Settlement: Understand that a settlement is where people have come to live and have built their homes. Understand that settlements are often located near to natural resources (iron ore). Understand that settlements can have different functions.

Development: Understand that human development is where people change an environment to meet their needs. Understand there are different kinds of development including: farming, manufacturing (making things) and buildings (shops, houses, schools, hospitals). Understand that development is good for humans, but can sometimes damage the natural environment causing problems for the animals and vegetation.

Regions: Understand that a region is a large area of land containing many towns and villages that are typically thought of as one connected area

Key Knowledge:

- Locate Middlesbrough on a map of the UK
- Locate the key towns and cities in the North East Region of the UK
- Locate the River Tees and River Tyne and know that these were often used for trade in the early 1900's
- Know how Middlesbrough has changed, through the use of historical maps
- Know that iron ore is a natural resource in the local area
- Know that other natural resources are found in the North East Region – i.e. coal
- Know that the discovery of iron and the industrialisation of the town caused a huge change in population and wealth
- Know that at the height of production, there were 91 blast furnaces within a 10-mile radius of Eston
- Know that the steel produced in our region was exported across the region (Tyne Bridge) and also across the world (Sydney Harbour Bridge for example)
- Revisit the world's oceans and continents and be able to label these on a map
- Identify where bridges made in Middlesbrough are located and plot on a world map
- Know that cheaper, imported steel led to the decline of this industry (and loss of jobs) in the area (know that the last blast furnace closed in 2015)

Geographical Skills:

- Locate a broader range of places on large scale maps
- Experience a wider range of maps of different scales
- Follow a route on a map with some accuracy
- Use 4 compass points to follow/give directions

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- Use letter/no. co-ordinates to locate features on a map.
- Use the scale bar on a map to estimate distance
- Draw a map of a short route experienced with features in the correct order
- Locate places on larger scale maps (e.g. create a route of Middlesbrough landmarks)
- Follow a route on a map with some accuracy
- Large scale OS maps
- Large scale street maps
- Internet map sites

Fieldwork Skills:

- Engage in guided enquiries and begin to suggest own questions for enquiry – How has Middlesbrough changed through time?
- Begin to evaluate own observations and compare them with others
- Understand the four compass points and begin to use them to follow routes
- Apply age –appropriate Maths knowledge to understanding of geography (e.g. length, distance, volume, angles, area and scales)
- Secure use of left/right from any perspective (e.g. with an upside-down map) and use four compass points to describe routes

Vocabulary

Physical features	natural features of land
Human features	features of land that have been impacted by human activity
Port	a harbour area where ships unload goods or passengers
compass points	any of the main points of a compass, e.g. north, south etc
migration	movement from one place to another in order to settle there
population	all the people who live in a country or area
river	a large, natural stream of fresh water that flows into the sea or a lake.
trade	The activity of buying, selling or exchanging goods or services.

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Unit Title: How did metal make Middlesbrough mighty?

History
Y3
Spring 1
Spring 2

End Points:

Change: Children are able to describe how the industry around Middlesbrough changed from mostly farming to becoming a major port with a steel works, shipbuilding and bridge building.

Cause and effect: Children are able to describe how industrialisation meant that there was lots of demand for iron and that supported the development of Middlesbrough

Significance: Children understand the significance of iron stone mining and steel production in the development of industry in Middlesbrough.

End of unit outcome:

1. How did industry change Middlesbrough from the late 1800s to the modern day?
2. What was found in Eston Hills and why was it an important material during industrialisation? How did this make Middlesbrough an important town?
3. Why did Iron and Steel make Middlesbrough important world-wide?

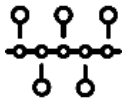
Links:
Text- The Iron Man by Ted Hughes
Geography – study of the local area and changes to Coulby Newham over time

Prior Learning:

- Children will further develop the skills of historians by using sources of evidence and how these can inform our understanding.
- Children will understand changes to their local area and apply this to a wider area
- Children will know (from Y3 A1 enquiry) that England was rich in natural resources

Key Aspects of the Unit:

Skills:  

Knowledge:  

Concepts (end points):   

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Key Historical Knowledge:

- Through the use of old census data and/or historical maps, children will be able to discuss the changes to Middlesbrough over time
- Children will know that over 200 years ago, Middlesbrough was a small town with less than 100 people living there
- Children will know that the understand the discovery of iron stone, in the late 1800's, enabled the town to grow
- Children will know that the building of blast furnaces meant workers flocked to the area looking for work and settled here and as a result the town grew and spread outwards from the river
- Children will understand, during the manufacturing boom, that Middlesbrough was a wealthy town and know that the number of banks was a key sign of the wealth of a town
- Children will understand the significance of Henry Bolckow to the town (first Middlesbrough mayor, later MP) and what he contributed to the town to benefit the people
- Children will know that, historically, that the River Tees was an important trade link

Historical Skills:

Historical Enquiry

- Children will construct informed responses that involve thoughtful selection and organisation.
- Children will develop appropriate use of historical terms, such as industrialisation, artefact and mining.

Using Sources as evidence

- Children will use a range of sources such as artefacts, photographs, images, maps and written information to understand how and why Middlesbrough changed dramatically from the late 1800s

Constructing the past

- Children will develop chronologically secure knowledge and understanding of Middlesbrough during industrialisation.
- Children will establish clear narratives within the period of industrialisation.
- Children will have an overview of the significant changes that occurred in Middlesbrough during industrialisation.
- Children will study elements of industrialisation in the north east such as the discovery of ironstone in the Eston Hills.

Sequencing the past

- Children will develop chronologically secure knowledge and understanding of the growth of Middlesbrough from the late 1800s.

Vocabulary

ironstone	A type of rock containing iron
mine	an excavation in the earth for extracting coal or other minerals
census	an official count or survey, especially of a population
artefact	An object from the past that shows evidence of what life was like.
smelt	extract (metal) from its ore by a process involving heating and melting
blast furnace	an enclosed structure in which material can be heated to very high temperatures, e.g. for smelting metals.

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ore	a naturally occurring solid material from which a metal or valuable mineral can be extracted
industry	economic activity concerned with the processing of raw materials and manufacture of goods in factories.
industrialisation	the development of industries in a country or region on a wide scale.

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Knowledge Narrative

Middlesbrough grew from a small village to a huge industrial town due to the discovery of ironstone. Steel made in Middlesbrough was exported and used all around the world. As the ironstone ran out it was discovered in other parts of the world. These countries were able to make and export steel cheaper than Middlesbrough. This led to a decline in steelmaking in Middlesbrough. The town gradually became less wealthy.

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<tr><td colspan="3">Project Enhancements:
A historic tour of Middlesbrough landmarks
Make a green screen documentary about the rise of Middlesbrough</td></tr>
<tr><td colspan="3"><u>How can you help?</u>

At home, please could you:
continue to listen to your child read a minimum of three times a week,
help your child to learn to spell the Year 3 and 4 word list,
help your child to learn their times tables
If you wish to do additonal homework with your child, you could:
Read stories and poems about robots
Go on a magnetic treasure hunt in your house
Investigate the best surfaces at home for toy cars to travel on measure the distance travelled
Use non-fiction books and the internet to research a metal of your choice
Design and make a fridge magnet</td></tr>
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SUBJECT: SCIENCE			
Subject Specific Vocabulary		Declarative Knowledge	Aspect
Word	Definition	Children know that magnets attract some materials and not others (Iron is magnetic. Steel is also magnetic because it contains iron. Most other metals such as aluminium, copper and gold are not magnetic).	Physics
Physics	Learning about movement, forces and magnets and their effect.	Children understand the way objects move (e.g. distance and speed) can vary depending on the type of surface it is placed on.	physics
Forces	Pushes or pulls.	Children know that some forces need contact between two objects, but magnetic forces can act at a distance.	physics
Magnet	An object which produces a magnetic force that pulls certain objects towards it.	Children know that magnets attract or repel each other. Like poles (e.g. 2 north poles) repel whereas opposite poles (north and south) will attract.	physics
Surface	The top layer of something.	Children know that magnets have two poles – a north pole and a south pole.	physics
Magnetic	Objects which are attracted to a magnet are magnetic. Objects containing iron, nickel or cobalt metals are magnetic.		
Magnetic pole	Either of two areas on the earth's surface, one near the geographic north pole and one near the geographic south pole, where the Earth's magnetic fields are strongest.		
attract and repel	A magnetic field is the area around the magnet where it can attract or repel things. When you bring two magnets together they will either attract or repel.		
Poles	North and south poles are found at different ends of a magnet.	Procedural knowledge	
		Children are able to plan and carry out an investigation.	Working scientifically

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Spiritual

Children will enjoy learning about their environment and the history behind the growth of the town in which they live. They will be able to reflect on their findings and the experiences offered during the topic.

Social

Linking with cultural and moral aspects, we will look at the rapid spread of Middlesbrough and the movement of people and services, which enabled the town to grow at the pace it did.

Be kind and REAP the rewards

Children will be supportive of each other and have a better understanding of the history of the town in which they live. They will show kindness and respect to those less fortunate and other cultures.

Moral

Children will show an interest in the growth of the town from its humble beginnings. They will be able to offer reasoned views about the moral and ethical issues surrounding the working environment, at the time, and be able to say if the pace of growth was justified

Cultural

Children will understand the movement of people and why, in Middlesbrough, we have such a diverse culture. They will be able to respect and other cultures and socio-economic groups and how this can be celebrated.

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British Values through EDC

Democracy	
The Rule of Law	We will look at information about the different faiths in the local area and gain an understanding that people in this country are free to follow whichever faith they want and this is protected by law.
Individual Liberty	
Mutual Respect	Because Middlesbrough is made up of people from a range of backgrounds and different faiths, it is important to treat everyone with respect.
Tolerance of those of different faith and beliefs	Understand that over time people have migrated to this country and to Middlesbrough looking for work. This means that Middlesbrough is made up of people from lots of countries with lots of different faiths and beliefs.