

Year 3&4: Coasts and Coastal Erosion



Key Learning:

By the end of this topic, you will have learned:

- How coasts are formed
- To use maps, atlases, globes and digital/computer mapping to locate local coasts and describe human and physical features studied
- To describe and understand how physical geography has an impact on our coasts (EG weather and climate change)
- To describe and understand how human geography/people have an impact on our coasts (land use new hotel scenario)
- What is being done and what can be done to prevent/slow down coastal erosion in our local area.

Enquiry Driver:

What can be done to protect our coasts?

Process & Changes

Know that both primary and secondary sources of evidence show process and change

Human Geography

Know, compare and describe some human geographical features in the wider world

Physical Geography

Know, compare and describe some physical geographical features in the wider world

Geographical Vocabulary

Know and understand key vocabulary related to geographical processes

Locations and Environments

Know and understand the interrelationship between location and environment

Similarities and Differences

Understand how and why some places and features are similar or different giving reasons

Prior Learning:

The meaning of physical and human features
Continents and oceans
Seaside units KS1
Effects of climate change

Curriculum enrichment:

Morecambe Bay beach trip
Arnsdale and or Silverdale

Key vocabulary: Coast, erosion, deposition, sea wall, saltmarsh, promenade, environment, channel, cave, stack, arch

Outdoor learning: Coast trips throughout the unit

Unit Focus: Geography

NC: Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom. They should develop their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.

Children should:

- Explore local coasts
- Compare and describe local coasts along Morecambe Bay
- Identify how different ways in which people live around the world sometimes have consequences for the environment and the lives of others from local to global scales
- Collect and analyse a range of data from simple fieldwork experiences
- Use secondary sources of information and ICT as part of investigations
- Use appropriate geographical vocabulary to communicate their findings

Key Questions:

KQ1: *Where are our local beaches?* What are they like? How is Morecambe Bay similar/different to other beaches in UK? Can children identify local coastal areas using maps?

KQ2: *What are the physical and human features of coasts and beaches?* How are they formed? How are they similar? How are they different?

KQ3: What are erosion and depositional landforms? Do children understand that coastal areas are constantly changing?

KQ4: *How does coastal erosion take place?* How are caves, stacks and arches are formed? How does human activity cause coastal erosion?

KQ5: *What is being done locally to help prevent coastal erosion in our local area?* How can we help?

ORACY: Children will look at a proposal to build a new hotel on an unspoiled area of coast from different viewpoints. They will then **debate** the effect this would have on the local environment and decide if the hotel should be built or not, giving reasons for their choices. Can children identify different viewpoints about the proposed building of the hotel? How does changing land use affects people in different ways, now and in the future? (Direct link into next half term unit)

Sources of evidence:

What different sources of evidence and resources can you use to answer these questions?

Photographs of changing coast line due to erosion. Data and research EG Morecambe Bay Marsh Mission

Resources:

<https://www.lancaster.ac.uk/media/lancaster-university/content-assets/documents/morecambe-bay-curriculum/SGBGPrimaryGeog.pdf>

<https://www.bbc.co.uk/bitesize/articles/z7rwdp3#znft6g8>

<https://www.bbc.co.uk/bitesize/articles/z7yc4xs#z37m6g8>

History	Art
	Create a mosaic coastal scene – use photographs of local coastal landscapes taken on their field trips as inspiration for their artwork.
Science	
<p>Living things and their habitats Pupils should be taught to:</p> <ul style="list-style-type: none"> recognise that environments can change and that this can sometimes pose dangers to living things. <p>Morecambe Bay birds (see resources on shared drive) https://www.lancaster.ac.uk/media/lancaster-university/content-assets/documents/morecambe-bay-curriculum/SGBGPrimaryArt.pdf https://www.morecambebay.org.uk/downloads/Birds-of-the-Bay-leaflet-web-version.pdf</p> <p>Rocks NC:</p> <ul style="list-style-type: none"> - compare and group together different kinds of rocks on the basis of their appearance and simple physical properties - describe in simple terms how fossils are formed when things that have lived are trapped within rock - recognise that soils are made from rocks and organic matter <p>EG soft rocks – Blackpool easily eroded Triassic rock – red mudstone, siltstone and sandstone Morecambe Bay – lower carboniferous limestone – collect different types from field trips Search for fossils whilst on field trips.</p>	<div data-bbox="1330 341 1800 587"> </div> <p data-bbox="1308 632 1823 660">Look at local artists such as Chas Jacobs</p> <div data-bbox="1258 667 1863 912"> </div> <p data-bbox="1164 944 1688 1011">Links to Science – Morecambe Bay birds Janet Mary Robinson</p> <div data-bbox="1218 1018 1420 1248"> </div> <div data-bbox="1451 1018 1675 1248"> </div> <div data-bbox="1774 1034 2069 1248"> </div> <p data-bbox="1800 944 2114 1011">Use Made by the Moon images</p> <p data-bbox="1249 1251 1361 1279">Curlews</p> <p data-bbox="1456 1251 1657 1279">Oystercatchers</p>

DT	Music
	<p>Composing – Garage Band – coastal sounds & bird song</p> <p>Look at pictures of the Morecambe Bay birds and listen to their sounds. Ensure on trips to the bay, sounds have been captured.</p> <p>L1: Making Waves – Pitch and dynamics L2: Birdsong</p> <p>Does the biggest bird make the loudest sound? Does the size of the bird give a clue to the pitch of their birdsong (highest/lowest)? Which birdsong is the quickest? (Most notes)</p> <p>Lesson 3&4: Pairs/small groups use Garage Band to compose a ‘Coastal Chorus’ Lesson 5: Perform</p>
Computing/ICT	PSHE
<p>Self-image and identity Word processing</p>	<p>Settling In – Rules; class charter; acceptable internet use agreement Other ideas:</p> <p>Ready for Learning - mindfulness resources and strategies resilience-game-Anna-Freud-Mentally-Healthy-Schools-April-2021.pdf</p> <p>Canal-and-River-Safety-KS2.pptx</p>
R.E.	Cross-curricular Maths:
<p>Hindu dharma What might a Hindu learn through celebrating Diwali? Coverage: Vishnu Rama and Sita Diwali</p>	<p>Measures Link to erosion of salt marshes – some areas have retreated by 250m in five years Measure this out on field</p>

English	English Focus 2 (2 weeks)
<p>Hello Lighthouse by Sophie Blackall https://www.edshed.com/en-gb/resource/hello-lighthouse-by-sophie-blackall-7-9-en-gb</p> <p>Reading: Make predictions and answer questions from visual clues, infer characters' emotions and feelings from their actions, understand new vocabulary meaning, comprehension and recall (VIPERS)</p> <p>Gathering content: Drama (role play, role on the wall, hot seating) Feelings/emotion line graph from a specific scene - choose whether to show the emotions from the lighthouse keeper, his wife or from the sailors. Compare with others. Short writing tasks – i) informal letter and ii) diary</p> <p>Writing: Narrative – scene from the story using visual clues – setting and description with dialogue woven through Newspaper Report</p> <p>Grammar: Expanded noun phrases Inverted commas for direct speech Verb tenses</p> <p>Spelling: Statutory Y3/4 appear, disappear, different, heard (here/hear) island, natural, notice, various</p> <p>Oracy: news reporters live at the scene of the rescue (in preparation for newspaper report writing)</p> <p>Guided Reading: Stage 3: Literacy Shed Plus - Coasts Stage 4: Literacy Shed Plus - Coasts</p>	<p>Explanation Texts – how coasts are formed & process of coastal erosion Purpose, layout, audience, features Literacy Shed Plus - LitShed Resource // Y3 Non-Fiction Explanations https://www.bbc.co.uk/bitesize/articles/zpsikty#zfsgwsg</p> <p>Reading: Read a range of explanation texts; pick out the key features; read texts about explanations about coastal erosion, how coasts and features are formed etc explore and discuss vocabulary and grammar used; ask questions to develop understanding; discuss how language, structure and presentation support meaning; retrieve and record information from texts read; Who is the audience? What is the purpose?</p> <p>Gathering Content: Pick out key words and phrases from texts read in reading phase; choose diagrams to be included in writing EG physical features of coasts (Grammarsaurus resource); orally rehearse sentences for different sub-headings.</p> <p>Writing: use examples and key features to write an explanation text to explain how coasts are formed/effects of coastal erosion... organise writing into paragraphs using headings and sub-headings</p> <p>Grammar: Use a wider range of subordinating conjunctions to explain (when, if, because, although, etc.) Adverbs and prepositions to express time and cause (meanwhile, after a while, with, before, until, onto, etc.)</p> <p>Spelling: Statutory Y3/4 appear, disappear, different, heard (here/hear) island, natural, notice, various</p> <p>Oracy: talk for writing activities</p> <p>Cross-curricular writing: Leaflet – how to help the birds of the Bay (Science, English & Geography links)</p>