

Name: _____

Tutor group: _____

Geography teacher: _____ Set: _____

Autumn term 2- Dedication

Topic: Coasts



What makes coasts so dynamic?

Home Learning expectations

- Written by yourself, in your own words.
- Completed by the due date.
- Finished to the best of your ability.
- Closely read and followed the instructions.
- Green penned and improved when needed.
- Peer- or self-assessed when asked to.
- Presented clearly and neatly

Year 8 Geography home learning

Key terms:

You will be using these key geographical terms in class throughout this unit of work.

For task 4 you will be learning these words and their meanings for a quiz, which you will do in class the following week.

Key word	Definition
Abrasion (corrasion)	When pieces of rock and sand wear away the cliffs like sandpaper
Attrition	When pieces of rock bash into each other, becoming smaller, smoother and more rounded
Backwash	The movement of water down a beach by the action of gravity.
Concordant coasts	Follow the ridges and valleys of the land, so the rock strata is parallel to the coastline.
Constructive waves	Waves that build up beach material to create landforms.
Corrosion (solution)	Chemical reactions occur when slightly acid water dissolves calcium, breaking down rock such as limestone.
Deposition	When waves lose energy and drops some or all of the material it is carrying.
Destructive waves	Waves that erode coastlines.
Discordant coasts	Alternates between bands of hard rocks and soft rocks, so the rock strata is at right angles to the coast.
Erosion	Means the wearing away of the landscape.
Fetch	The length of water over which the wind has blown, affecting the size and strength of waves.
Hard engineering	Building physical structures to deal with natural hazards, such as sea walls to stop waves.
Hydraulic action	The power of moving water being forced into cracks in the rock, causing pieces to break away
Longshore drift	The transportation (movement) of material along a coastline of sediments (sand and shingle) along a coast, in a zig-zag pattern
Prevailing wind	The most frequent wind direction.
Soft engineering	Involves adapting to natural hazards and working with nature to limit damage.
Solution	Process of transport by which material is carried dissolved in the water
Spit	A long narrow ridge of sand and shingle projecting (sticking out) from the coastline into the sea
Swash	The rush of seawater up the beach after the breaking of a wave

Task 1- The UK's coastal places

Instructions: Using an atlas or online map (e.g. Google maps) to help you, label the map of the UK by writing the correct place names by the circles. Use 3 different colours for the different types of place.

Cargo ports	Passenger ports	Seaside holiday towns		
☐ Felixstowe	☐ Aberdeen	☐ Blackpool	☐ Margate	☐ Scarborough
☐ Immingham	☐ Dover	☐ Bournemouth	☐ Newquay	☐ Skegness
☐ Liverpool	☐ Holyhead	☐ Brighton	☐ Oban	☐ Tenby
☐ Southampton	☐ Plymouth	☐ Cromer	☐ Portrush	☐ Ventnor

Key (use a different colour for each):

○ = Cargo ports

○ = Passenger ports

○ = Seaside holiday towns



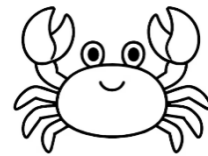
Self-assessment:

I successfully located _____ out of 20 places

My map is (choose one):

☐ Neat and accurate

☐ I need to take more care



Task 2- Coastal processes

Instructions: Use the classwork you've done in your exercise book to help you answer these recall questions:

1. What does **the coast** mean?

- ☐ the beach ☐ where the land meets the sea ☐ under the sea

2. Fishing is one way in which people use the coast. Give **2 more** uses of coasts.

1. _____ 2. _____

3. Which direction does the UK's **prevailing wind** come from?

4. How is the **size of waves** connected to the **fetch**?

If the fetch is **long**, the waves will be ☐ bigger ☐ smaller

If the fetch is **short**, the waves will be ☐ bigger ☐ smaller

5. Name a place in the UK which has a **long fetch**.

- ☐ Dover ☐ Cornwall ☐ London ☐ Florida

6. What is the difference between **swash** and **backwash**?

7. What name is given to the **type of waves** which have a strong swash and weak backwash?

- ☐ Destructive waves ☐ Constructive waves

8. What would the type of waves in Q7 do to a beach?

- ☐ build it up ☐ wear it away ☐ move it sideways



9. What 4 types of **erosion** happen on coasts?

10. How do **headlands** and **bays** form on the coast? Use **hard** or **soft** in each of the gaps below.

Headlands and bays form when there are bands of _____ (resistant) rock and bands of _____ (less resistant) rock. Processes such as hydraulic action and abrasion wear away the _____ rock, creating a bay, and leave the _____ rock sticking out, creating a headland.

Peer assessment by _____ **One area I think you could improve further is:**

☐ People and the coast (Q1-2)

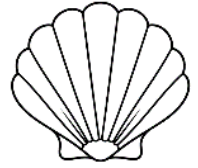
☐ Waves (Q3-8)

☐ Erosion (Q9-10)

☐ Something else _____

Task 3- Geography in the news: Sea defences at Withernsea

Instructions: Read the article and watch the videos (link below/on Teams), then answer the following questions. <https://www.internetgeography.net/new-sea-defences-at-withernsea/>



1. Identify three types of coastal defences at Withernsea.

1. _____ 2. _____ 3. _____

2. Which type of coastal defence involves trapping sand, being transported by longshore drift, to form a wide sandy beach? ☐ gabions ☐ beach nourishment ☐ groynes ☐ rock armour

3. How have the sea defences been extended to the south of Withernsea?

400m of _____ has been installed and the _____ have been re-profiled

4. What has happened to the rate of erosion along the boulder clay cliffs to the south of Withernsea?

It has increased from _____ m per year to _____ m per year.

5. True or false? To the south of Withernsea rates of erosion have increased because there is very little sediment to form a wide beach. ☐ True ☐ False

6. What name is given to the notch-shaped bays that form to the south of the defences?

C _____

7. What rate of erosion has been recorded to the south of defences at Withernsea? _____ metres per year

8. How far has the rock armour at Withernsea been extended? _____ metres

9. How much rock armour was imported from Norway? _____ tonnes

10. How much do the individual pieces of rock weigh? Between _____ and _____ tonnes

11. True or false? The boulders were used to create an interlocking rock structure, designed to prevent the sea from eroding the cliffs. This is thought to be amongst the largest used in such defences around the UK.

☐ True ☐ False



12. What happened to the cliffs before the rock armour was installed?

They had been re-_____

13. When was the project completed? _____

14. Do you think this project was a good idea? Why/why not? _____

Self-assessment:

What went well:

Even better if:

Task 4- Learning your glossary words

Instructions: You need to **learn the glossary key terms from page 2** of this booklet for a quiz next week. To help you do this, answer the following recall questions:

Part 1: Answer the questions

1. What is erosion?



2. What are destructive waves like and what do they do?

3. What is soft engineering?



4. We may need to protect the coast against erosion because it is use by people for:

☐ Industry

☐ Tourism

☐ Farming

☐ All of these things

5. How does longshore drift work? Complete a labelled sketch in this box to explain it.

Land

Sea

Part 2: Use a key term from your glossary to complete these sentences.

6. A lot of sand and pebbles were moved along the coast by the process of _____.

7. In the winter storms there were a lot of _____, which caused a lot of land to be eroded away.

8. The _____ in Cornwall comes from the south-west, meaning that it has a long fetch and large waves.

9. A sea wall was built in the town to stop the waves from crashing against the cliffs and wearing them away. This is an example of _____.

10. I knew that the coast was a _____ because I passed a lot of headlands and bays as I drove along the coast road.

Quiz to test this learning: completed in class and assessed by your teacher

Your score:

/15

Task 5- Protecting the coast

Instructions: Imagine you live in a coastal town at risk of erosion. Your house, friends, job, social activities, hobbies and interests are all based near the coastline. You have seen storms destroy the cliffs underneath your local area and are worried about the future. Complete the letter below:

Dear Council Member,

I hope this letter finds you well. I am writing to you as a concerned resident in our community regarding the issue of coastal erosion. Many people in our town are worried about erosion, because _____

I think you should consider building some more sea defences. There are many different types, and I think the two that would work best are _____ and _____. I have chosen these because _____

Some people think that sea defences can look unattractive. However I don't agree with this. I have drawn a labelled sketch below of what I think the new coastal defences would look like:

I hope that you will consider my ideas.

Yours sincerely,

Self-assessment:

What went well:

Even better if:

Year 8 Geography home learning

Task 6- Unit recap and overview

Instructions: Use the classwork you've done in your exercise book to help you answer these recall questions:



1. Write these **landforms** in the correct order to show how they form over time:

Stack Cave Arch Stump ~~Crack~~

Crack, _____

2. In which English county would you find Old Harry?

☐ Nottinghamshire ☐ Surrey ☐ Dorset ☐ Norfolk

3. What happened to Holbeck Hall hotel and why?

4. Which sea is the Holderness coast next to?

☐ English Channel ☐ Atlantic Ocean ☐ Irish Sea ☐ North Sea

5. What are the 4 types of coastal **transportation**?



6. Circle the correct words from the choices in **bold** to explain how a spit is formed.

A spit is formed by **erosion / deposition**. Sediment is moved along the coast by **longshore / byshore** drift. When the coast changes direction this process can continue and as the sea **gains / loses** energy, it cannot carry as much sediment so material is deposited. This deposited sediment extends the coastline as a long, **thin / wide** landform called a spit.

7. Give 3 types of **hard engineering**.

8. How do **groynes** work to prevent erosion?

☐ They absorb wave energy ☐ They block longshore drift to keep sediment on the beach
☐ They are cheaper than sea walls ☐ They are often wooden so wear away over time

9. Why don't we just build a sea wall around the whole of the UK to stop erosion completely? Suggest at least two reasons. _____

10. **Think and link:** explain one way in which the topic of **coasts** can be linked to our last topic (**population**)



The UK has an _____ population, which means there are many _____ people. The coast is a popular place for people to move to when they are _____. This can put a lot of pressure on health and care services in coastal towns.

Peer assessment by _____ One area I think you could improve further is:

☐ Coastal processes (Q1-6) ☐ Coastal management (Q7-9) ☐ Something else