

### Lesson 1: WHAT IS THE COASTAL ZONE?



### Independent research links

BBC Bitesize - Coastal Landforms https://www.bbc.co.uk/bitesize/guides/zmwxsbk/revision/1

Kiddle Encyclopedia - Coasts https://kids.kiddle.co/Coast



### Video links

Coastlines

https://www.youtube.co
m/watch?v=tTYHZ7exBS0



**The coastal zone** is a narrow stretch between the land and the sea. The sea, land and air constantly change its shape and form.



We use the coast in many different ways, especially here in the UK as we live on an island, so the coast is all around us. Read about some of the uses of the coast on the *Kiddle article* and try to explain what each use means. **Challenge – can you** find examples of places around the UK where the coasts are used in these ways?



### Use Explain Place example

Defence

Transport

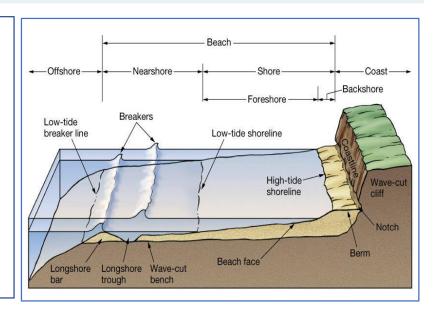
**Tourism** 

Settlements



Look at the diagram of the coastal zone to the right.

DESCRIBE the features of the coastal zone (remember to use the labels in the diagram and SAY WHAT YOU SEE).





Now, let's practice using diagrams to illustrate knowledge. On a separate piece of paper, DRAW a labeled diagram to illustrate the different parts of the coast from the diagram provided above. Challenge – can you suggest which human uses of the coast would happen in the different locations on the coastline diagram? Add these in a different colour on your diagram.



### Lesson 2: WAVES AT WORK



### Independent research links

BBC Bitesize KS3 – The importance of waves <a href="https://www.bbc.co.uk/bitesize/guides/zmwxsbk/revision/3">https://www.bbc.co.uk/bitesize/guides/zmwxsbk/revision/3</a>



#### Video links

How do waves work? <a href="https://www.youtube.com/watch?v="http



Read the information in the first BBC Bitesize link. Complete the following sentences.

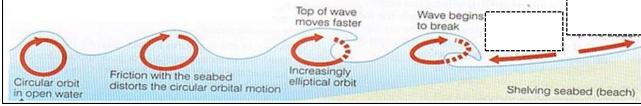


The power of waves is one of the most important forces that changes the shape of the coast. Waves are created by \_\_\_\_\_\_ over the surface of the sea. The size of a wave depends on: length of \_\_\_\_\_ the wind has been blowing, the \_\_\_\_\_ of the wind, and the \_\_\_\_\_ - how far the wind has travelled



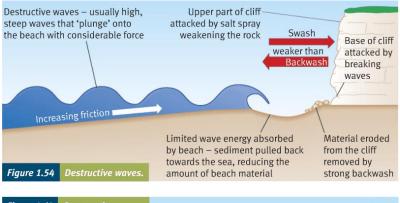
Using the information from the BBC Bitesize link and the video, **WRITE** in the correct definition and then label the diagram below with SWASH and BACKWASH in the correct positions.

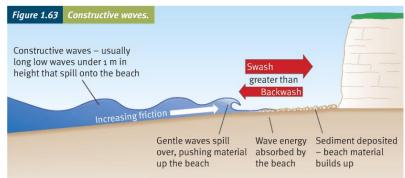
swash
backwash





**Look** at the two diagrams below. **State** three differences between a destructive and a constructive wave.







### Lesson 3: EROSION and the COAST



### Independent research links

BBC Bitesize KS3 - Coastal processes <a href="https://bbc.in/2V5kMCi">https://bbc.in/2V5kMCi</a>
BBC Bitesize KS3 - Types of erosion <a href="https://bbc.in/3a41GAC">https://bbc.in/3a41GAC</a>



#### Video links

Time for Geography – Four processes of erosion (GCSE video but explains it well)

https://bit.ly/2V0cN9s



### Read the information in the first BBC Bitesize link. Complete the following sentences.



The \_\_\_\_\_ is a narrow stretch between the land and the sea. The sea, land and air constantly change its shape and form. **Erosion** is the process by which the coastline gets worn down. There are four ways in which it happens. The UK has approximately \_\_\_\_\_ km of coastline including cliffs, beaches, salt marshes and ports/harbours.

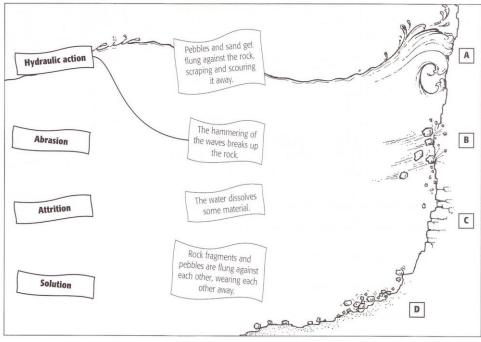


Using the information from the second BBC Bitesize link and the video, draw a line to link the keyword to the definition and then to the diagram.



#### TAKE IT FURTHER

Explain what types of landforms are created along the coastline due to erosion.





<u>Check your understanding</u> - Cover the diagram above and write a definition of the four ways in which the coastline is being eroded in your own words.

Keyword	Definition
Hydraulic action	
Abrasion	
Attrition	
Solution	



## Lesson 4: DEPOSITION and the COAST



### Independent research links

BBC Bitesize - Coastal Landforms
<a href="https://bbc.in/2XLKPQr">https://bbc.in/2XLKPQr</a>
BBC Bitesize - Wave types
<a href="https://bbc.in/3ctRToV">https://bbc.in/3ctRToV</a>



#### Video links

Understanding waves
<a href="https://bbc.in/34M9K8d">https://bbc.in/34M9K8d</a>
Depositional coastlines (up to 1 min)
<a href="https://bbc.in/2RR1Chf">https://bbc.in/2RR1Chf</a>



**Longshore drift** is a process of transportation that shifts eroded material along the coastline. **Prevailing wind** is the most common wind direction, which for us is from the south west. **Swash** is the wave that travels up the beach.

**Backwash** is the wave that travels back down the beach.



Read the statements below. Write the numbers 1-4 to show the order in which longshore drift happens.



The waves returns down the beach (backwash) with the force of gravity, drawing material back off the beach at a right angle.
The beach material continues to move along the beach in a zigzag motion.
The prevailing wind brings waves onto the beach (swash) at an angle, carrying beach material with it.
The beach material is picked up once again by the next wave.



In the space provided below, draw a labeled diagram to show the process of longshore drift. You can find lots of examples in a simple Google search!



Look at the your diagram. EXPLAIN in complete sentences how longshore drift happens using your diagram to support. Challenge – can you explain what landforms are created from this process?



### Lesson 5: MANAGING COASTS



### **Independent research links**

BBC Bitesize - Coastal Management <a href="https://www.bbc.co.uk/bitesize/guide">https://www.bbc.co.uk/bitesize/guide</a> s/z6qtyrd/revision/1



### **Video links**

Methods to reduce coastal erosion
<a href="https://www.youtube.com/watch?v="eeKpz8oD7E">https://www.youtube.com/watch?v=eeKpz8oD7E</a>
Should we protect coastlines?
<a href="https://www.youtube.com/watch?v=F7xNJiU3ZgE">https://www.youtube.com/watch?v=F7xNJiU3ZgE</a>



Hard engineering this involves building structures to protect the coast.

**Soft engineering** this involves working with nature by using natural materials or allowing nature to take back areas.



Read over the details on coastal management using the BBC Bitesize link and watch the video on methods to reduce coastal erosion. EXPLAIN below the advantages and disadvantages of at least 2 different types of coastal management techniques.





**WATCH** the video by a student in Norfolk – Should we protect our coastlines? Below, record the pros and cons of coastal management according to this student. Beneath your scales, explain what you think about coastal management techniques – should we protect our coastlines?

### <u>Judgement</u>

**Pros** 

<u>Cons</u>







### Lesson 6: THE HOLDERNESS COASTLINE



# Independent research links BBC Bitesize KS3 – Holderness Case Study <a href="https://www.bbc.co.uk/bitesize/guides/z2234j6/revision/4">https://www.bbc.co.uk/bitesize/guides/z2234j6/revision/4</a>



### Video links

Holderness Case Study
<a href="https://www.youtube.com/watch?v=I">https://www.youtube.com/watch?v=I</a>
XtVnzzrQU4



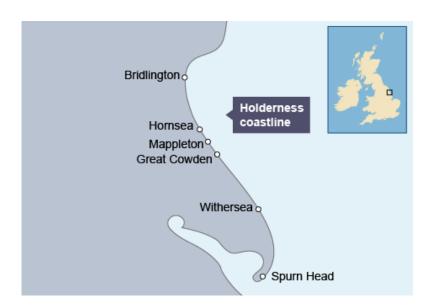
Read the information in the first BBC Bitesize link. Complete the following sentences.



The Holderness coastline is located on the \_\_\_\_\_ coast of England. It is the \_\_\_\_\_ eroding coastline in Europe. The coastline is rapidly eroding at an average of \_\_\_\_\_ metres a year.



Using the information from the BBC Bitesize link and the video, **LABEL** around the map what the problems are facing this coastline.





<u>Check your understanding</u> – **WRITE** below what has been done to manage this coastline, EXPLAIN how these techniques will help and **SUGGEST** how the conflict that may exist over these techniques.

these t	conniques.	
Management	Why?	Conflict?