**The Coastal Zone Revision Booklet**

**The coast is shaped by weathering, mass movement, erosion, transportation and deposition.**

There are three groups of weathering. These are:

**Physical**

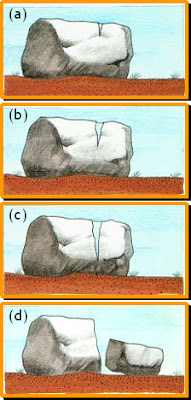
**Chemical**

**Biological**

**Physical**

**What type of weathering is this?**

Explain what is happening at each stage.



Which type of physical weathering would you find in hot, dry climates?

Explain the processes using the following words: ***heating cooling expansion contraction cracks***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chemical**

This happens when the rock’s mineral composition is changed, leading to the disintegration of the rock. The main process of chemical weathering is............................. and this happens in ...................... rocks.

**Biological**

This is caused by plants and animals.

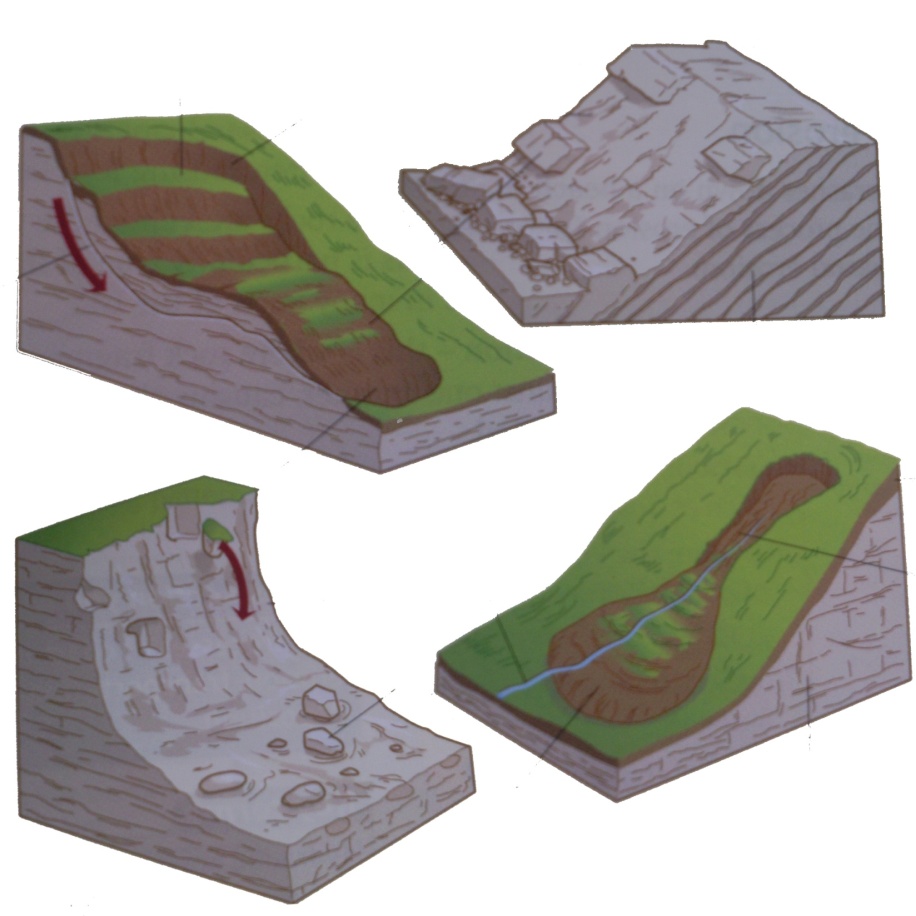
Explain how both of these cause biological weathering.

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**Mass movement**

There are four types of mass movement which provide an input of material into the coastal system.

L



M

Rock\_\_\_\_\_\_

R S

R S

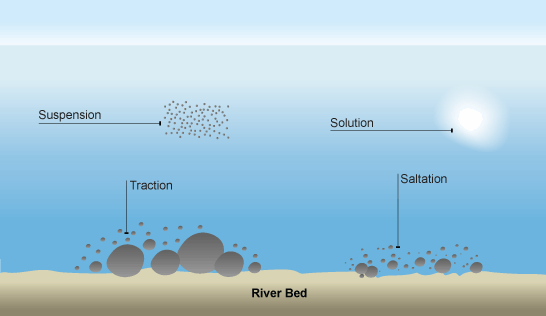
**Coastal Erosion**

**When a wave crashes down on a beach or smashes against a cliff, it carries out the processes of coastal erosion. There are four to remember:**

|  |  |
| --- | --- |
| **H A** |  |
| **Ab** |  |
| **S** |  |
| **Att** |  |

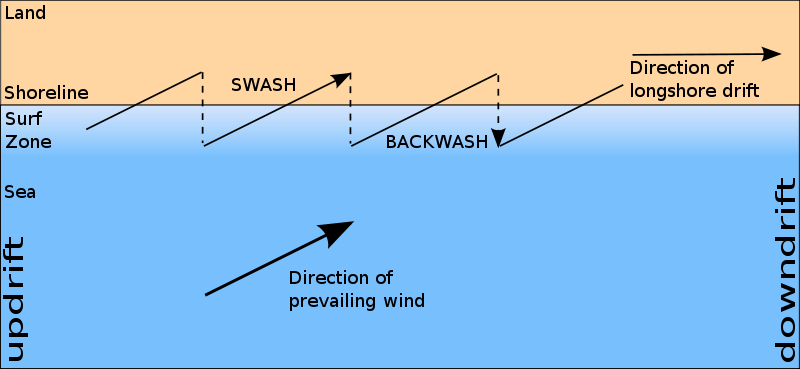
**Coastal Transportation**

**Four main types of sediment transportation can be identified.**



**Coastal Deposition**

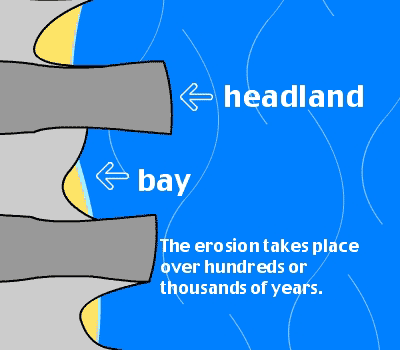
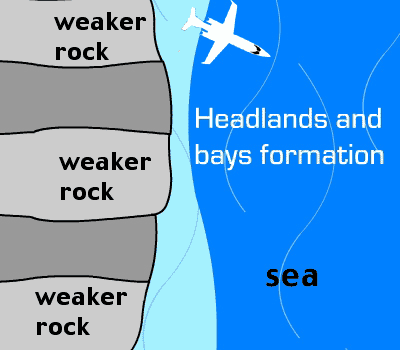
Coastal deposition takes place in areas where the flow of water slows down. Sediment can no longer be carried or rolled along and has to be deposited.



**Distinctive landforms result from different processes.**

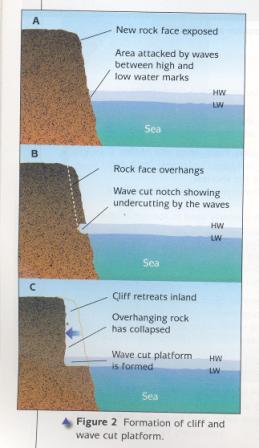
Landforms resulting from erosion –

**HEADLANDS AND BAYS**



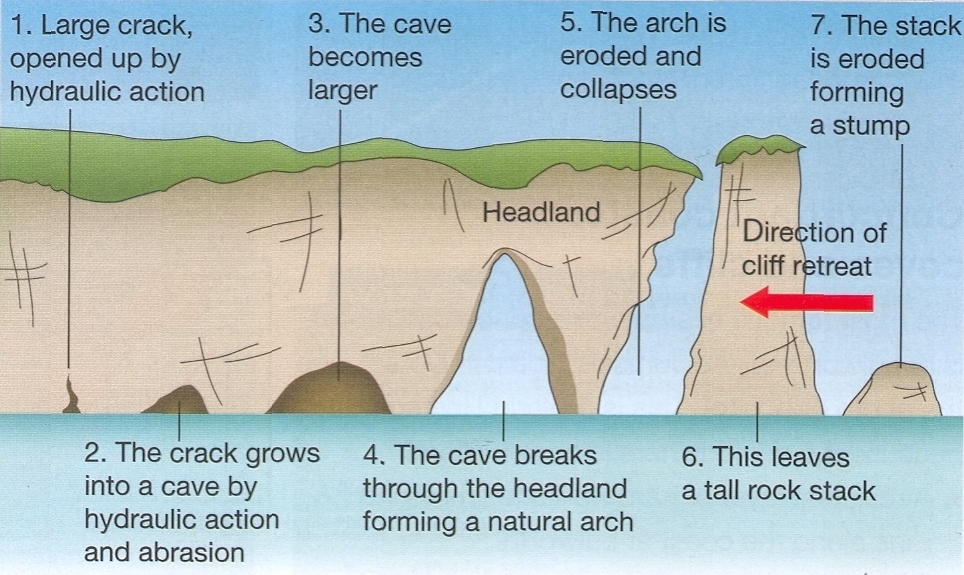
Cliffs rarely erode at an even pace. Sections of resistant rock stick out to form headlands. Weaker sections are more easily eroded to form bays.

**CLIFFS AND WAVE CUT PLATFORMS**

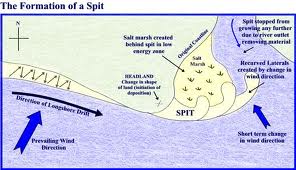


The sea cliff is the most widespread landform of coastal erosion.

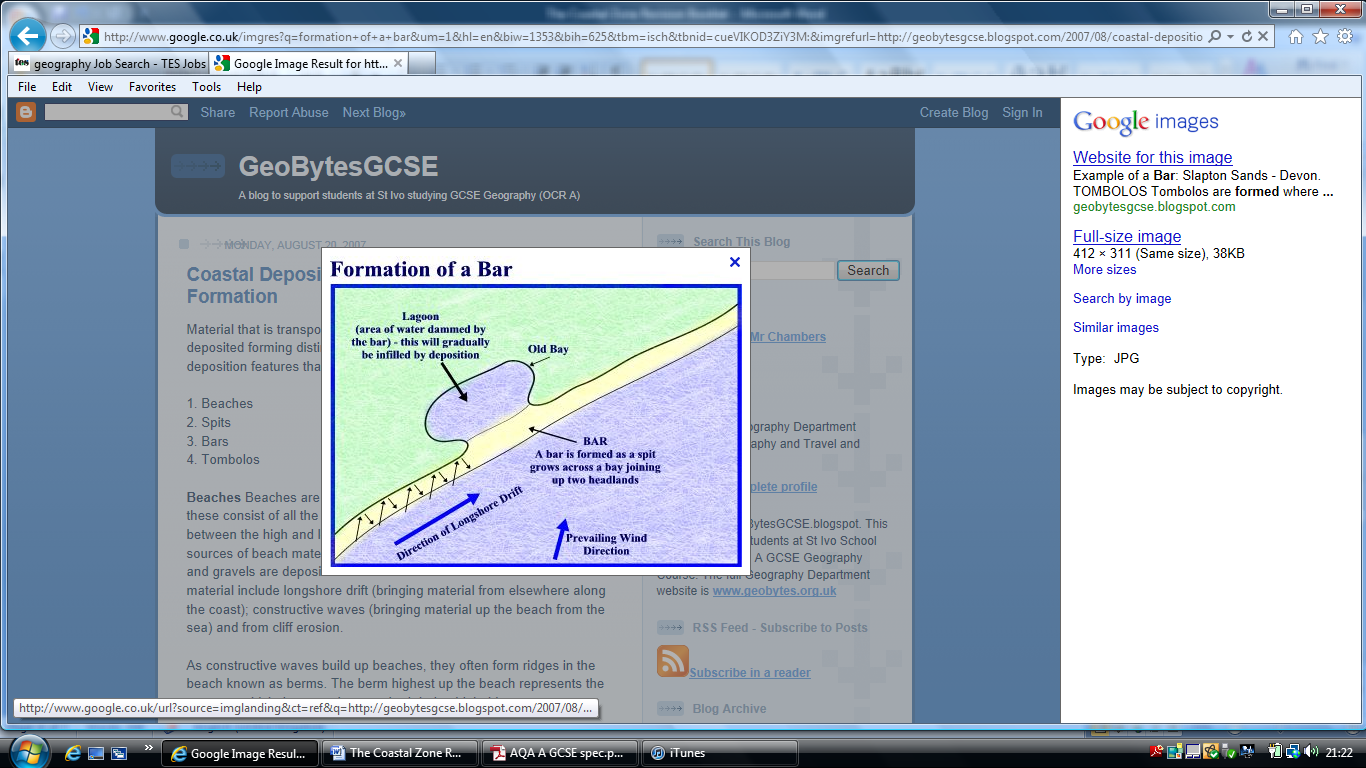
**CAVES, ARCHES, STACKS, STUMPS**



**Landforms resulting from deposition** –

[](http://www.google.co.uk/imgres?q=formation+of+a+beach+diagram&um=1&hl=en&biw=1353&bih=625&tbm=isch&tbnid=YKG6E3ow6YdIBM:&imgrefurl=http://geobytesgcse.blogspot.com/2007/08/coastal-deposition-landforms-features.html&docid=8d6Bj7Fws35zXM&imgurl=http://cgz.e2bn.net/e2bn/leas/c99/schools/cgz/accounts/staff/rchambers/GeoBytes%20GCSE%20Blog%20Resources/Images/Coasts/Spit.jpg&w=579&h=334&ei=AYCpT6bIGYmy0QXDzZmVAg&zoom=1&iact=hc&vpx=348&vpy=157&dur=795&hovh=170&hovw=296&tx=138&ty=70&sig=108793964414443474266&page=1&tbnh=102&tbnw=177&start=0&ndsp=18&ved=1t:429,r:1,s:0,i:72)

**Explain the formation of a spit.**

****

**Rising sea level will have important consequences for people living in the**

**coastal zone.**

ESSEX

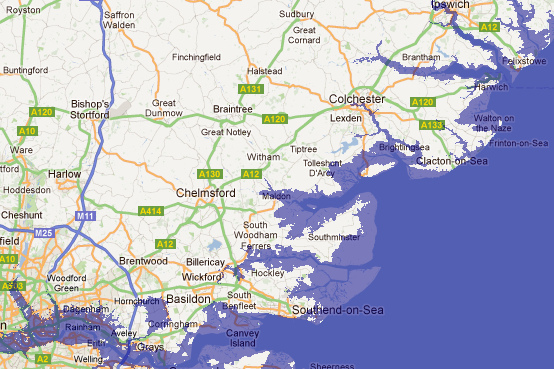
**What is causing rising sea level?**

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**Describe 4 possible impacts of sea level rise in East Anglia.**

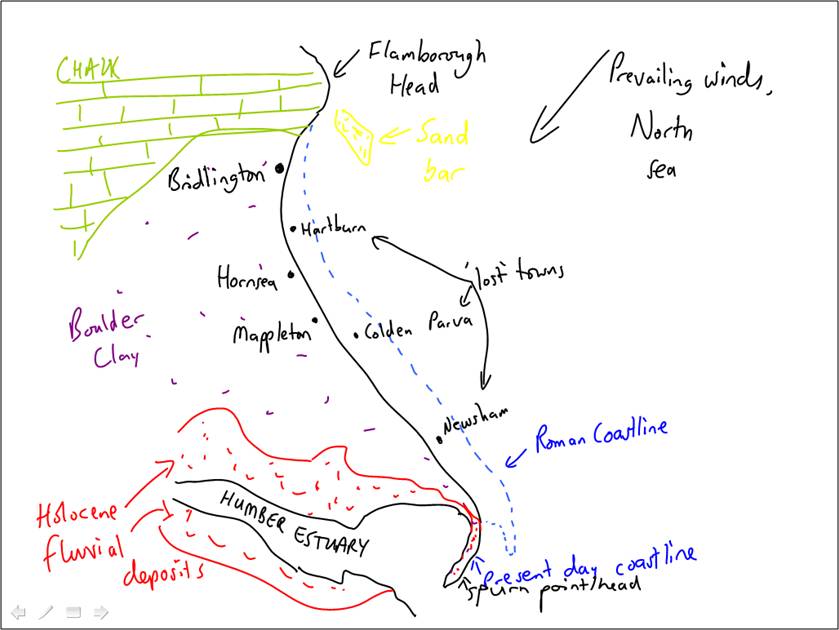
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Coastal erosion can lead to cliff collapse. This causes problems for people and the environment.**

**HOLDERNESS**



1. **Where is the Holderness Coast? What is the problem?**

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1. **Why is Cliff Erosion such a problem here?**

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1. **Attempts at Coastal Management along the Holderness Coast include:**

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1. **Example of the impacts of Coastal Management: Mappleton**

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1. **Protecting Mappleton**

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1. **Problems for further down coast**

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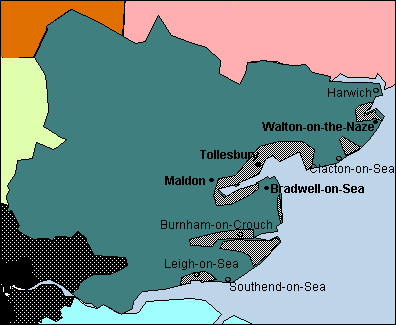
**There is discussion about how the coast should be managed. There is debate about the costs and benefits of ‘hard’ and ‘soft’ engineering.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Engineering** | **Description** | **Advantage** | **Disadvantage** |
| **Sea Wall** |  |  |  |
| **Groynes** |  |  |  |
| **Rock Armour** |  |  |  |
| **Beach nourishment** |  |  |  |
| **Dune regeneration** |  |  |  |
| **Marsh creation** |  |  |  |

**Coastal areas provide a unique environment and habitat. There is a need**

**for conservation and this leads to conflict with other land uses.**

**THE ESSEX MARSHES**



**Description**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Why are they under threat?**

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**Strategies for conservation**

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**WEBSITES**

**http://www.bbc.co.uk/schools/gcsebitesize/geography/coasts/coastal\_processes\_rev1.shtml**

**http://www.coolgeography.co.uk/GCSE/AQA/Coastal%20Zone/Coastal%20zone.htm**

**http://www.geography.learnontheinternet.co.uk/gcse/revision.html**

**http://www.geography.learnontheinternet.co.uk/gcse/command.html**

**http://www.geography.learnontheinternet.co.uk/topics/coasts.html**

**http://www.s-cool.co.uk/gcse/geography/coasts/revise-it/coastal-management-strategies**