

How do humans impact our coastlines?

History:

In 1993 the Holbeck Hall Hotel in Scarborough was destroyed in a landslide down the cliff edge.

We will look at a range of sources and make our own conclusions about why the disaster actually occurred.

The Cornish Pasty (design and technology):

A Cornish past must be made of...

- 12.5% meat
- 25% vegetables
- pastry can be shortcrust, rough puff or puff (but must be strong and not easily broken)
- ingredients must go into the pastry uncooked, and slowly baked for flavour
- the pasty must be baked west of the Tamar river, which divides Devon and Cornwall



Art and Design:

We will be looking at the work of various landscape artists throughout history and evaluate how their culture and beliefs are shown in their work. Using this research, we will look at how viewfinders can help us focus on tiny details before selecting materials and equipment to create our own landscape art inspired by the coast.

Geography:

Coasts, which form the boundary between land and ocean, receive a constant battering from the wind and waves. In calm weather, the water merely laps at the shore, but on windy days, towering, foam-capped breakers smash onto coasts. It's no wonder that the shapes and even location of coasts are constantly shifting, as waves erode the land and as sea levels change. In some places, coasts are retreating inland by several metres each year. Coastal features, such as cliffs and arches, are formed by wave erosion. As the sea beats on rocky headlands, softer rocks are eroded (worn away) to form hollow caves. Twin caves on either side of a headland may eventually wear right through to form an arch. As the battering continues, the top of the arch collapses to leave an isolated pillar. In the last few million years, sea levels have risen and fallen by up to 200 m (660 ft). Scientists believe these are caused by temperature changes, as Ice Ages come and go. During Ice Ages, sea levels are low because large amounts of water are frozen. When the climate warms, the ice melts and sea levels rise. Today, sea levels look set to rise because of global warming. This will bring a risk of flooding to coasts.

Key Words and Definitions:
Sea defences– features added to a coast to protect it from erosion and flooding
Sea wall– an embankment to prevent erosion of a shoreline.
Stack– a detached pillar of rock on a sea coast separated from the mainland by erosion.
Waves– formed when wind blows over the sea
Coastline– is where the land meets the sea.
Current– the flow of water in a certain direction.
Deposition landforms– landscape features made up of material that has been laid down.
Erosion landforms– landscape features resulting from the wearing away of rock.
Groyne– a wall built into the sea from the seashore to create a beach by trapping sand.
Arch– a coastal feature formed when waves erode through a headland.
Bay– a wide, curved inlet of a sea or lake.
Beach– an area of sand or pebbles along a coast.
Cave– a hollow in a cliff formed by wave action enlarging a crack in the cliff.
Cliff– a steep rocky slope that may overlook the sea.

Methods of protection	How does it work?
<p>RECURVED SEA WALL</p>	<p>Concrete Wall, curved under the side to deflect the power of the waves.</p>
<p>ROCK ARMOUR / RIP-RAP</p>	<p>Large boulders on the beach – reduce the force of the waves absorbing the wave energy within the gaps between the rocks.</p>
<p>GABIONS</p>	<p>Cages of boulders built into the cliff face – small rocks help absorb the energy.</p>
<p>WOODEN REVETMENT</p>	<p>Wooden structure breaks the force of the waves and trap beach material behind them.</p>
<p>GROYNES</p>	<p>Wooden or in some cases steel structures that stop long shore drift and build up / anchor the beach, protecting the base of a cliff</p>