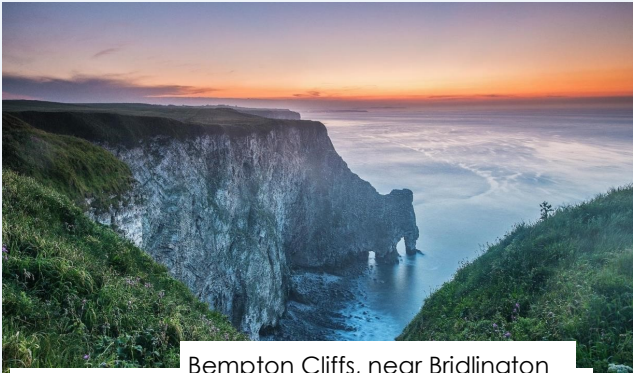


Geography Year 5 Summer — Coastal Erosion

Key knowledge to know and use

- Erosion is the wearing away of the land by forces such as water, wind, and ice.
- Erosion has helped to form many interesting features of the Earth's surface, including mountain peaks, valleys, and coastlines.
- The different types of weathering are physical, biological and chemical.
- The main difference between weathering and erosion that weathering occurs in-situ whereas erosion involves movement to a new location.
- If a coastline is made of sections of harder and softer rock, these will erode at different speeds when attacked by waves.
- Features of coasts formed by erosion include bays, headlands, cliffs, cracks, caves, arches, stacks and stumps (see diagram below)
- Parts of the coastline on East Yorkshire is the fastest-eroding part of Northern Europe, with a rate of between 0.5m and 4m lost each year (see pictures to the right).



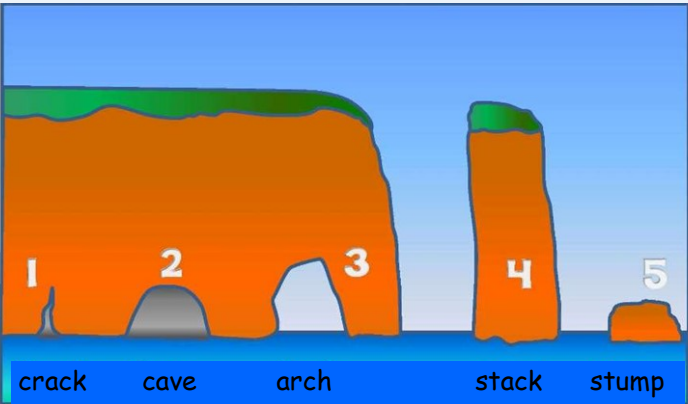
Bempton Cliffs, near Bridlington



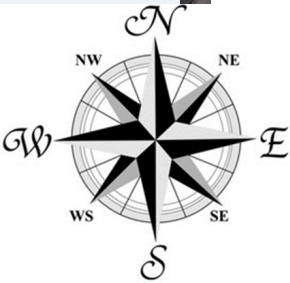
An example of coastal erosion, near Withernsea



The east coast of Yorkshire has been affected by coastal erosion. This coastline is the fastest-eroding in northern Europe.



- Waves attack rock face using hydraulic action and abrasion. Crack is formed.
- Over time, crack is enlarged to form cave.
- Cave is widened and deepened and pushes through the headland to form a natural arch.
- Undercutting and weathering lead arch to collapse leaving a stack.
- Weathering and erosion wear stack down to a stump.



This diagram shows the formation of caves, arches, stacks and stumps.

Key vocabulary to remember and use in your learning

Word	Definition
abrasion	Little rocks getting picked up by the waves and being smashed on the cliffs.
attrition	Small rocks are smashed against each other making smaller rocks.
bay	Where the softer rock has eroded more quickly, bays form.
corrosion	Chemicals in the sea dissolve the rock.
headland	The harder rock erodes more slowly, and forms headlands surrounding bays.
hydraulic action	The weight of a wave crashing on a cliff face, pushing the air in cracks and caves, under pressure, to force the crack/cave open.
undercutting	A process where waves erode a notch at the base of a cliff.