

Coverack: Answers

Explore Coverack

Circular walks from the car park

Lowland Point (about 3 hours)
East along the coast path to Lowland Point and Dean Quarry, inland to St Keverne and back along the old church path through Trevaloe.

Black Head (about 2 hours)
South through Coverack to Dolor Point, along the coast to Chynalls Point and Black Head, then return inland through Treleaver and Trevalis.

Car park **Bus stop** **Information**

korrier
Supporter and funder by Keverne Parish Council

INSERIANZ
Supported through Dorset's Aggregates Levy Sustainable Fund

When you walk along Coverack's many footpaths, you're travelling back in time. Many of the farms – especially those with names beginning with 'Tre' – date back to the Early Middle Ages, and some of the field systems are even older, laid down by Iron Age people from 700BC, or by Bronze Age settlers from 2,500BC. Before them came the nomadic hunter-gatherers who left behind thousands of flint blades, scrapers and axes on the cliffs near Lankidden and on Crousa Downs.

Basking shark

Marine life and shipping
From the old coastguard lookout on Black Head you watch over one of the busiest shipping lanes in the world, with naval vessels, coasters, liners and tankers steaming down the Channel or calling in at Falmouth. There's a steady traffic of marine life too – grey seals, bottlenose dolphins and porpoises. Warm summers bring schools of huge, harmless, basking sharks, feeding on plankton with gaping mouths, and sometimes colonies of by-the-wind-sailors (like jellyfish, with blue transparent sails).

Wild flowers
In spring, the Iron Age cliff forts at Chynalls Point and Lankidden are speckled with sea campion, thrift, bird's foot trefoil and ox-eye daisies. Beside the coast path you'll come across wild thyme, dropwort and Cornish heath, and on rocky outcrops the parasitic ivy broomrape and the starlike flowers of English stonecrop. On Crousa Downs and at Main Dale you might find heath-spotted and butterfly orchids amongst the heather and purple moorgrass, and yellow rattle along the roadside.

Kestrel

Butterflies and birds
Summer brings marsh fritillaries and silver-studded blue butterflies to the Main Dale Nature Reserve; here and at Crousa Downs you'll see meadow pipits and skylarks flitting above the heath, and kestrels and buzzards hunting for voles and lizards. Fulmars, herring gulls and kittiwakes throng the cliffs around Black Head and Braegles Point, while black shags gather on rocks to dry their wings. Look for gannets out at sea, searching for fish and diving into the waves at terrific speeds.

Unique to the Lizard, Cornish heath above Downas Cove

© Keverne Parish Council & Coverack Information Point 2008. Supported by local businesses, St Keverne Parish Council and The National Trust. Photographs: W&A Postlethwaite, David Chapman. Designed by Serpentine Design.

1. Easy Peasy...

Our easy level question is:

Using the map on this 'Explore Coverack' information board, starting at the Cliff fort beneath Lankidden, head along the coast.

How many creatures, (insects and animals) are there mentioned "in the sea" between here and Porthoustock?

2. Mind Twister...

Maritime history

Stand on Coverack's ancient quay and you're at the centre of village life. Since 1724 fishing boats have worked out of this harbour, and ketches have unloaded coal, grain and fertiliser. It was here that fishermen would hear the pilchard huer's cry, and seafarers, alive or dead, were brought ashore from wrecks such as the *John* (1855) and the *Mohegan* (1898). Crowds thronged the quayside for the christening of Coverack's three lifeboats, and still gather for gig-races, lifeboat days, carolares and regattas.



Pilchard fishing
For centuries Coverack livelihoods depended on the arrival of vast migrating pilchard shoals. When the watcher, or 'huer', spotted an approaching shoal from his lookout (left) near Boak House, he would shout 'Havoi! Havoi!' and the fleet would pull out to sea (below) with their heavy 320-yard-long seine nets. Obeying the huer's signals, the seine boats would encircle the shoal with the net, and smaller boats would scoop out the fish. The catch was then cleaned, salted, pressed and packed into barrels by the village women in the pilchard cellars near the harbour. By the early 20th century the shoals had ceased and the industry collapsed. Coverack fishermen today hunt for crabs and lobsters, flatfish, monkfish, mackerel and pollack.



The Coverack lifeboats
After the *Mohegan* and *Paris* (1899) wrecks, locals demanded a lifeboat at Coverack. Commissioned in 1901, the *Constance Melanie* saved 94 lives in 33 years, and cox'n John Corin was awarded a silver medal for gallantry in the 1912 *Pindos* rescue. The *Three Sisters* motor lifeboat (1934 - 54) saved 65 lives, and its successor, the *William Taylor of Oldham*, saved 26. Sadly, Coverack's last lifeboat, an inflatable inshore vessel, was withdrawn in 1977.



The wreck of the *Pindos*
In a south-easterly gale on the night of 10 February 1912 the Hamburg-bound barque *Pindos* was blown onto the rocks at Chynalls Point (below). The *Constance Melanie* was launched and in the pitch dark battled through towering waves to reach the stricken ship, while coastguards fired life-saving rockets in vain. Eventually a searchlight was set up on the cliffs, and by its light the lifeboatmen hauled all 28 crew, one by one, by lifebelt through the surf.



Coastguards and LSA volunteers
Coastguards arrived in Coverack in 1822 to tackle smuggling. Their Watch House still stands south of Dolor Point and their houses are at Sunny Corner. By the 1850s they also coordinated sea rescues, and in 1866 they were put in charge of the volunteers who manned the new horse-drawn life-saving apparatus invented by Helston-born Henry Trengrouse, which fired line-carrying rockets onto vessels in distress, and pulled survivors ashore in a breeches-buoy.



The wreck of the *Pindos*, February 1912

Our **medium** level question is:

From this 'Maritime History' information board, add together the number of masts in all the images and multiply this total by the number of oars visible.

This total matches the last 2 digits of a year on this noticeboard.

What are the next 2 words immediately after this date?

3. Brain Buster...

Discover Coverack's geology

Much of the Lizard Peninsula represents a slice of ancient ocean floor, pushed to the Earth's surface when two former continents collided. At Coverack you can actually see the **Moho** – the boundary between the Earth's crust and the Earth's mantle – laid flat across the beach.

As you walk south across the beach, you're travelling towards the centre of the Earth, from **gabbro** (crust) through a transition zone (the **Moho**) to deeper peridotite (mantle), now altered to **serpentine**. 380 million years ago these rocks were about 5km below an ocean floor.




A slice of the Earth
The **Moho** – or **Mohorovicic Discontinuity** – is named after a Croatian seismologist, **Andrija Mohorovicic**, who discovered in 1909 that seismic waves changed velocity as they passed through the Earth's crust and into the mantle. The **Moho** is less deep beneath the ocean, where the crust is formed of heavy gabbro and basalt. Coverack is one of the few places in the world where the ocean crust and the mantle are exposed on the Earth's surface.



Serpentine
Much of the Lizard Peninsula is formed from serpentine, an altered rock from the Earth's mantle. The constant motion of tide and sand creates polished boulders, and craftworkers still use the stone to make beautiful ornaments.

The transition zone
Halfway across the beach the serpentine is replaced by a jumble of intermingling rocks from the mantle and the crust – serpentine, troctolite and gabbro. The serpentine boulder pictured above is crisscrossed with veins of gabbro.

Basalt dykes
In the transition zone you'll also see bands of gabbro cut through by bands of basalt. Both were molten rocks – magma – in the Earth's mantle, which rose through fractures in the serpentine and cooled to form what geologists call dykes.

Troctolite
This is a rare rock on the Lizard Peninsula. It is sometimes known as troutstone because its white feldspar crystals on a dark olivine background look like the spotted skin of a trout. It is the oldest dyke material visible on Coverack beach.

Can you identify these pebbles on the beach?



Basalt
A grey-black igneous stone, the youngest of the Coverack rocks.

Gabbro
This grey stone is, like basalt, a solidified form of magma.

Troctolite
Distinguished from serpentine by its abundant white feldspar specks.

Serpentine
The oldest rock found at Coverack, with large shiny crystals.

Coverack beach is a national Site of Special Scientific Interest. Please leave all rocks where you find them.

© Coverack Information Point 2007. Supported by St Keverne Parish Council. Photographs and text: Peter Easley, Bill Scadding. Designed by Serpentine Design.

Our **hard** level question is:

Using the Discover Coverack's geology notice board, take away the value of the depth between the mantle and the liquid core from the value of the deepest depth on the slice of the Earth.

Taking this total, use the cipher 1=A, 2=B etc, to convert the digits to letters.

Which word on the board contains all 4 of these letters – not necessarily in the same order?

Answers:

Easy:

Heading from the Hill fort, the creatures (insects and animals) you encounter are, in order, **Beagles** Point, The **Bees**, The **Oxen**, **Shark's** Fin.

The total is **4**.

Medium:

There are 8 mast on the various vessels depicted in each photo and 3 oars visible in the Pilchard fishing boat image. $8 \times 3 = 24$. This total matches the last 2 digits of 1724 in the first paragraph and the 2 words that immediately follow the date are "**fishing boats**".

Hard:

The value of the depth between the mantle and the liquid core is 2,900.

The value of the deepest depth on the slice of the Earth, is 6,378. $6,378 - 2,900$ gives a total of 3,478.

Using the cipher of 1=A, 2=B etc, each digit translates as follows: **3=C**, **4=D**, **7=G** and **8=H**.

The only word on the whole board that contains all 4 of these letters (but not in the same order) is "**changed**", which can be found in the paragraph under "A slice of the Earth".