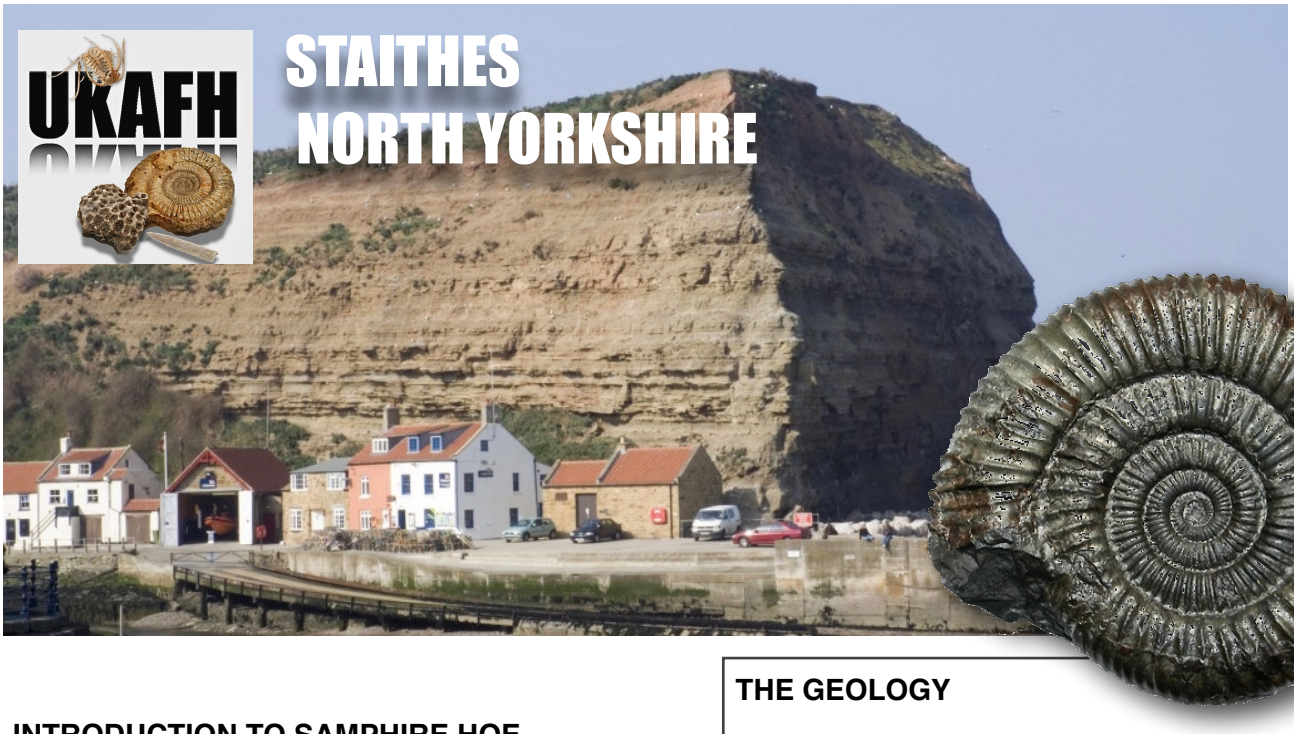

INTRODUCTION TO SAMPHIRE HOE
Thank you for enrolling on our fossil hunting event.

Staithes is very like Robin Hoods Bay and Runswick Bay, with its narrow streets and alleyways hanging onto the cliffside either side of a small river. Staithes is famous for its fossils, particularly ammonites.

Just make sure you are not going to get cut off if the tide is coming in. There are significant risks on this coast section to the west of Staithes harbour, as the dangers with regard to rock falls apply to these cliffs.

A major problem at this particular location is the tide. The exposures and views of the cliff are on a wave-cut platform.Most of the cliffs are vertical or nearly vertical and they contain much unstable shaley material. Hard hats are essential and the foot of the cliff should not be approached in most places. The rock platform is extremely slippery with algae in places, especially immediately to the west of Staithes harbour wall. Great care is needed to prevent a backward fall. Adequate clothing, a rucksack and a hard hat can reduce chance of injury in the case of such a fall.

There are fossils everywhere in the bedrock and some good examples of ammonites in grey nodules that can be found amongst the stones near the cliffs or within ledges, ready to be picked out. They are also easy to prepare.
When extracting fossils, always use safety glasses or goggles, for the safety of yourself and others.

THE GEOLOGY

To the west of Staithes, the Redcar Mudstone Formation can be seen in the cliff face. The Staithes Sandstone Formation is also visible above.

To the east of Staithes, you can see the higher part of the Staithes Formation in the lower part of the cliff and the higher beds of the Cleveland Ironstone Formation, where ironstone bands can also clearly be seen. The rocks are from the Jurassic epoch and Middle Liassic age (Pliensbachian Stage) of about between 190.8 Ma and 182.7 million years in age.

You need to walk eastwards, round the first headland, looking for concretions that yield bivalves (*Protocardia truncatum*, *Oxytoma cygnipes* and *Gryphaea depressa*), along with the scaphopod, *Dentalium giganteum*, until you reach the next headland, Penny Nab. This is the area where ammonites are regularly collected. Nodules can be cracked open using a good geological hammer, revealing the ammonite within.

WHAT FOSSILS MIGHT YOU FIND?

At any fossil hunting event, you cannot be guaranteed to find fossils. The frequency of fossils depends on the rates of erosion of the cliffs, the weather and of course, if others have already scoured the site beforehand!

The most common fossils at Staithes are ammonites, especially *Amaltheus stokesi*, *(shown below)* found in nodules.

Bivalves, such *Protocardia truncata* (*see photo below)* are also a common find.

Below: The ammonite *Pleuroceras spinatum.*

Below: The bivalve *Pseudopecten equivalvis*

We hope you enjoy your day at Staithes.
Please visit our website for further events which might be of interest to you at https://ukafh.com/
Our book, with over 50 other sites across England & Wales, can be purchased at £16.95 here:
http://www.ukge.com/en-GB/A-guide-to-fossil-collecting-in-England-and-Wales__p-3439.aspx