S100: Science: a foundation course
S100/26: Earth history

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Contributors in the clip: Michael Pentz, Chris Wilson.

Clip transcript: Examining a coastal environment to understand geological processes.

Michael Pentz:
If your idea of a geologist was of somebody pottering about with a little hammer collecting bits of rock then I expect you had a bit of a surprise from the last four course units because there after all we were dealing with the earth as a huge process, a large scale process, building up our picture of its structure, of its dynamics mainly from physical data, but not only from physical data. You see an essential part of the data we need to understand the Earth is, quite simply, data about rocks like these rocks in front of me here. Question is though can we, in some way, by studying what is going on now today, find out anything about how these rocks were made? Can we, for example, find what did this? Perhaps some strange animal did something strange to that rock or can we discover how this hole which looks rather like a hole made by a great fat worm might have been made sometime in the distant past? Now this is exactly what Chris Wilson, Dr Chris Wilson, will be doing in the programme, where you will find him shortly exploring a beach off the coast of Norfolk, a beach where sedimentary deposits are being laid down.

Chris Wilson:
Now this is rather interesting, we haven't found the animal that was making the little worm casts on the surface but here's an interesting spiral pattern which must have been made by some animal, I don't know what, that found a particularly rich layer, rich in organic material, and it's just systematically grazed along this layer, gobbling up the organic material and then passing out the sediment that it couldn't digest. This is rather a beautiful example which I've never seen on a beach before. Well let's see if we can find the little beast that makes these worm casts. Well let's see if one's in here. Yes here we are. You can see that it's about two or three inches long but when it's in the burrow it can extend up to two or three times this length and by expanding and contracting, it's able to move about. It takes in sediment and digests out the organic material.