Level: C1





## Audio transcript

Now turn to Part 2.

PAUSE 5 SECONDS

You'll hear a chemical engineering student called Jack Byers talking about his course and a research project he took part in during his summer vacation. For questions 7–14, complete the sentences with a word or short phrase. You now have 45 seconds to look at Part 2.

PAUSE 45 SECONDS

Hello, everyone! My name's Jack Byers. I'm here today to tell you about the project I worked on during my vacation, which was linked to my university studies. OK, let me backtrack a bit – I'm currently doing a degree in chemical engineering. I've always wondered how we'll solve problems such as sustainable energy, and in particular climate change, which I think was really the key factor in influencing my choice of degree subject.

After graduation, I could go on to find a job in areas such as pharmaceuticals, the mobile-phone industry or even in the oil industry. At the moment, though, the last of those seems less appealing because I'm very committed to nature conservation. I somehow feel there might be a conflict of interest there.

Anyway, I'm looking forward to being able to make a contribution to the responsible processing of raw materials and I'm not just talking about fossil fuels here – that would be great. However, the work I do might also have negative effects on the environment - and that brings me neatly on to my project on the beach.

My tutor advised me to join a relevant project during the summer vacation to gain experience I'd need after I graduated, so I decided I'd apply to help clean up some beaches near where I live, to get some first-hand experience of the devastating effects of litter on coastal ecosystems. And some of the biggest polluters, I discovered, are particles of plastic that

end up in our seas. They can be found washed up on beaches all over the world but are often assumed to be small stones. These pellets of plastic sometimes called 'nurdles' enter the marine environment in factory waste.

Most of the nurdles we collected were white and the whiter they are, the newer they are. They soon start to yellow and the brown ones have generally been in the sea for many years, whereas black ones are likely to contain tar – so that's not such a secure indication of age.

But the fact remains that these things don't break down or decompose in any way. And sea creatures end up eating these with their food, with dire consequences. This really brought home to me the need for more ecologically-friendly plastic materials rather than what are referred to as single-use plastics, such as supermarket carrier bags and wrappers, which should be phased out of production.

I have to say, too, that I wasn't prepared for the amount of other rubbish I found on the beach. Some of it wasn't that unusual, like the cartons and drink cans left behind, but I also came across a large chunk off a surfboard, and I did start to wonder what the back story was there!

While I was working on the beach, I was lucky enough to meet a conservationist called Martin, who told me all about the various rocks and shells on the beach, before getting me to look closely at the seaweed – it was all over the sand and of course very interesting from a chemical engineering point of view. Then we investigated some rock pools, where we came across a number of small animals.

So before I go onto... [fade]

Now you'll hear Part 2 again.

REPEAT PART 2

PAUSE 5 SECONDS

That's the end of Part 2.