



Dima: Hello and welcome to this edition of 6 Minute English with me, Dima Kostenko

Rebecca: and me, Rebecca Byrne.

Dima: Today we'll have some useful words and phrases used in science and environmental studies as we talk about the loneliest creature on the planet. But first - Rebecca, can I ask you a question?

Rebecca: *Responds*

Dima: If you were asked to put yourself on a scale from 1 to 10 where 10 means a very sociable person who hates being on her own and 1 means a complete loner, where do you reckon your place would be?

Rebecca: *Responds*

Dima: *Responds.* OK, in that case I'd like to stretch your imagination a bit. Imagine always living completely on your own. How would you feel about that?

Rebecca: *Responds*

Dima: And if on top of that you had to live in darkness, deep underground?

Rebecca: *Responds*

Dima: Well, it may be hard to imagine but there is a creature on Earth that lives exactly like that: no light, no company - it reproduces by dividing itself - and even no oxygen! It's not a human being of course, it's only a tiny little bug, but the fact that it exists came as a big surprise to a group of scientists who discovered it only a few months ago.

Rebecca: I think I remember that story... Wasn't it somewhere in South Africa?

Dima: That's right, deep in a gold mine. In a moment we'll hear from one of those scientists, Dr Dylan Chivian, and I hope you can help me with the language Rebecca.

Rebecca: *Responds*

Dima: But first, as usual, a question to you: You remember that the lonely bug lives without oxygen. So how do you think it gets its energy? Is it from:

- a) gold
- b) sulphate, or
- c) iron?

What do you think Rebecca?

Rebecca: *Answers*

Dima: We'll check your answer later but first let's hear from Dr Chivian, and here is Rebecca with some words and expressions to help you understand him better.

Rebecca: 'To speculate on something', meaning to suggest, or to guess that something is a possibility. 'A blueprint' - that's a full and detailed plan of something. 'Ecosystem', a word that describes living organisms and the environment where they live. And 'genome' - in other words, a complete set of genes, or full genetic information.

Dima: So, as you listen, look out for these words and expressions:

Rebecca: Speculate on. Blueprint. Ecosystem. Genome.

Dima: Are you ready? Here's Dr Chivian:

Clip 1 **0'13"**

It's something we've speculated on before, but to really find it happening here on Earth is confirmation of that idea, that you could in fact pack the blueprint for an entire ecosystem into a single genome.

Rebecca: Dr Chivian says scientists have suspected that an organism like this might exist. And now their idea has been confirmed. The lonely bug is in fact a reflection, or a plan of a whole natural system, hiding in a single set of genes.

Dima: And that's not all: Dr Chivian says the bug could even help in the search for extraterrestrial forms of life.

Rebecca: 'Extraterrestrial' - meaning coming from outer space, from planets other than Earth.

Dima: Listen to him again and this time try to find the answer to this week's question: How does the lonely bug get its energy? Here's a tip for you: try and catch the name of a certain chemical. And what's your language point Rebecca?

Rebecca: I've got a couple in fact: the verb 'to evolve', which is to develop slowly, and a very common phrase 'it may well be', meaning it's quite possible. Shall we listen?

Clip 2 **0'20"**

Early Earth and other planets didn't have a lot of oxygen on them, so life has evolved to use oxygen in order to get its energy, you know. If we ever discover life on other planets, it may

very well be that they live without oxygen and instead potentially use chemicals like sulphate to get their energy.

Dima: That was scientist Dr Dylan Chivian. Now, before we talk about the answer to this week's question, could you go through some of today's vocabulary again Rebecca?

Rebecca: *Responds.* First of all we talked about the phrase **to speculate on something**, meaning to suggest, or to guess that something is possible. Then there was the word **blueprint** - a full and detailed plan of something. We defined **ecosystems**, a word that describes living organisms and the environments where they live. And then, **genome** - a complete set of genes, or full genetic information. We mentioned the adjective **extraterrestrial**, meaning coming from outer space, from planets other than Earth. And then we heard the verb **to evolve**, which is a shorter way of saying to develop slowly. And finally, my favourite: a very common expression that means 'it's quite possible'. Can you remember what it is Dima?

Dima: 'It may well be'?

Rebecca: That's exactly right. Or, as Dr Chivian put it, 'it may very well be'.

Dima: Thanks Rebecca. Finally, back to our question. Which chemical does the lonely bug get its energy from?

Rebecca: *Responds (the choice was gold, sulphate or iron and I said... which was correct/wrong...)*

Dima: I'm afraid that's all we have time for today. Until next week.

Both: Goodbye!