



Tapescript for IELTS Listening

Sample Listening *Flow-chart Completion Objective*

You will hear two biology students comparing their research on evidence of life on Earth and other planets.

- A** So we've talked about how we find evidence of past life on earth, and in the second part of our presentation, we want to demonstrate in a practical way how to find out if there has ever been life on other planets in the solar system.
- B** Yes, and I thought we could present the information in the form of a flowchart.
- A** Great idea. So, the procedure begins by sending a spacecraft to land on the planet.
- B** Right, then a vehicle, called a rover, is sent out from the spacecraft. This is a small machine which travels over the planet. The rover needs to find a good range of organic material so they direct it to a site that's likely to provide this. Then the rover drills down under the surface to collect a sample.
- A** Why does the sample have to come from underneath? Why not just scoop up some soil from the top? Is it to stop contamination from the rover? I've heard that can be a problem.
- B** No, the rover is clean. It's actually because of the atmosphere. Unlike our planet, the surface might be exposed to high levels of radiation and that could kill anything living on the surface.
- A** I see. But something could still be present underneath the surface.
- B** Yes. It's possible.
- A** So at this point the soil and rocks that have been collected would need to be analysed, to see if there are any signs of fossils.
- B** Right. Just as we do on Earth. It's unlikely that there'd be anything that large, but it's an essential step.
- A** Yes.
- B** Once that's been done, the sample is crushed into a fine powder.
- A** Why is that? Doesn't that destroy everything?
- B** Well, luckily, no. And in the next stage of the analysis, the sample has to be exposed to heat, and then run through a mass spectrometer.

- A** We'll need to explain that this is an instrument used to measure the weight and concentration of atoms and molecules.
- B** Yes. This level of analysis is necessary to search for microscopic signs of life, much smaller than fossils, such as microbes.
- A** So once all this has been done and the results sent back to Earth, what happens next? Can they do anything with the results?
- B** Yes. They can compare them with data from similar studies done on large bodies of water or desert soils from Earth.
- A** Fascinating. Let's make a start on our presentation slides, shall we?