**Question 1**

“Australia has some of the oldest land surface on earth and while rich in biodiversity its soils and seas are among the most nutrient poor and unproductive in the world. This is due mainly to the country’s geological stability, which is a major feature of the Australian land mass, and is characterised by, among other things, a lack of significant seismic activity.”

*http://www.dfat.gov.au/facts/env\_glance.html*

**Describe** why Australia is geologically stable.

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2 marks

**Question 2**  
Prior to human settlement, Australian flora and fauna evolved in a unique way.  
Describe the three key characteristics that led to the development of Australia’s unique flora and fauna before human settlement.

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6 marks

Answers

**Question 1**. Australia is thought to be geologically stable as it does not sit on a tectonic plate margin. Australia does not have active volcanoes and has very few mild earthquakes.

**Question 2.** Two marks were awarded for describing each of three key characteristics. As part of the description, students needed to name each of the characteristics. Students seemed to have trouble identifying the specific key characteristics, despite the fact they are named in the study design.

The following is an example of a possible response:

* Biological isolation: Australia separated from Gondwana millions of years ago due to continental drift; therefore, flora and fauna were isolated from other continents, thus adapting in a unique way.
* Geological stability: Australia has low tectonic, volcanic and glacial activity. There are few mountain ranges and the landscape is generally flat, making it prone to floods and erosion, and therefore affecting the survival of flora and fauna.
* Climatic variation: Flora and fauna needed to cope with hot and dry conditions, and even drought at times. At other times they needed to cope with bushfires and floods as the climate is erratic.