

20: the Australian landscape

suggested answers

- 1) If the Australian continent had separated from Gondwana before the dinosaurs died out, Australia's isolation may have saved its dinosaurs. As it happened, isolation meant that its flora & fauna developed in unique ways.
- 2) Australian fauna developed in unique ways because of 50 million years of isolation.
- 3) Rainfall: Mountains boost precipitation in the form of snow & rain. As mountains wear away precipitation decreases.
Soil: Mountains make new soil (for example, when glaciers grind away rock). As mountains wear down less new soil is generated. (Soil is also formed by active volcanoes which are notably absent in Australia.)
- 4) All 3 of these examples result from low rainfall & poor soil:
 - a) Areas of low rainfall are marginal in times of normal rain. Even a small decline in rainfall will cause drought.
 - b) Bushfires are more likely in drier rather than wetter conditions, especially where the landscape is dominated by woody plants & grasses.
 - c) Areas of low rainfall & poor soil cannot readily sustain large populations. The most populous regions of the world are found in areas that have high rainfall &/or regularly flood & fertile arable soil, for example, the Nile Delta, the Ganges Delta & the Yangtze River Delta.
- 5) The first humans to leave Africa needed to be extremely bold & adaptable, & quick enough witted to recognise previously unknown dangers.
- 6) Humans wiped out woolly mammoths, sabre-toothed tigers in Europe & Asia; mammoths, sabre-toothed cats, American horses & zebra, giant beavers, sloths & camels in North America; & moas in New Zealand.

teachers' notes

additional activities

- 1) Ask students to research a particular Australian megafauna species. For an exhaustive list, visit: en.wikipedia.org & key in Australian megafauna.
- 2) Read chapter 6 ("Splendid isolation") & chapter 16 ("The great megafauna extinction debate") in *The future eaters* by Tim Flannery.
- 3) View the episode about megafauna in *State of the planet* by David Attenborough.
- 4) Take students on a short excursion by foot to a scenic location near school. Ask them what they think they would have seen at this location a) 50,000 years ago; b) 200 years ago; & c) 50 years ago.