

Chapter 26: IGCSE The human impact on the environment

- 1 List three human activities which could cause the loss of a species.
- 2 Distinguish between the terms 'pesticide', 'insecticide' and 'herbicide'.
- 3 (a) What is the special property of a 'persistent' insecticide?
(b) In what ways is 'persistence' (i) a useful property, (ii) a harmful property?
- 4 Put the following events in the most probable order.
(a) Predatory birds poisoned by insecticide.
(b) Trees sprayed with insecticide.
(c) Earthworms eat leaves which fall from trees.
(d) Predatory birds eat small birds.
(e) Beetles damage trees by spreading a virus.
(f) Insecticide absorbed by tree leaves.
(g) Small birds eat earthworms.
- 5 Put the following events in the most probable order.
(a) Dead algae decomposed by bacteria. (d) Bacteria use up oxygen.
(b) Excess nitrate and phosphate. (e) Aquatic algae die.
 discharged into river. (f) Water depleted of oxygen.
(c) Fish die of suffocation. (g) Aquatic algae grow rapidly.
- 6 What are the principal sources of excessive nitrate and phosphate in rivers and lakes?
- 7 List the short-term and long-term effects of forest destruction (a) on hillsides, (b) in the tropics.
- 8 In what ways does over-grazing lead to soil erosion?
- 9 Which of the following are likely to help conserve soil and prevent erosion?
(a) Ploughing slopes. (f) Removing trees from hillsides.
(b) Planting trees on steep slopes. (g) Growing the same crops each year.
(c) Using chemical fertilisers. (h) Keeping as many animals as possible on grassland.
(d) Terracing hillsides. (e) Using organic manure.
- 10 (a) What are the two main pollutants that contribute to acid rain?
(b) Where do these pollutants come from?
(c) What direct or indirect effect is 'acid rain' thought to have on (i) lakes, (ii) forests and (iii) buildings?
- 11 Which of the following are important 'greenhouse' gases?
oxygen, water vapour, carbon dioxide, nitrogen oxides, ozone, methane, nitrogen
- 12 Which part of the carbon cycle is responsible for the increasing concentration of carbon dioxide in the atmosphere.

The human impact on the environment (continued)

- 13** Explain briefly why 'greenhouse' gases lead to global warming.
- 14** By how much do we need to cut carbon dioxide emissions in order to halt global warming?
5%, 20%, 60%, 90%
- 15** In what way do chlorofluorocarbons (CFCs) cause global problems?
- 16** (a) What do you understand by the term 'monoculture'?
(b) What is one disadvantage of a monoculture?
- 17** Which of the following are not covered by the 1956 and 1968 Clean Air Acts?
(a) Sulphur dioxide emission from power stations.
(b) Smoke emission from factories.
(c) Particulate emission from vehicles.
(d) Emission of chlorofluorocarbons from aerosol sprays.
- 18** State two ways in which sulphur dioxide emissions from coal-fired generating stations could be reduced.
- 19** Which of the gases listed below can be reduced in vehicle exhausts by (a) a catalytic converter (b) a lean burn engine?
carbon dioxide, carbon monoxide, unburned petrol, nitrogen oxide, water vapour, oxygen