B8 Ecology FACT SHEET

Competition	
1. Define habitat	**The place where an organism lives**
2. What do we call the interactions of organisms with each other and with the non-living parts of the environment ?	Ecosystem
3. List resources plants compete for	• **Light** • **Space** • **Water** • **Minerals**
4. List resources animals compete for	• **Food** • **Mates** • **Territory**
5. List 2 ways animals depend on plants	• **For food** • **For shelter**
6. List 2 ways plants depend on animals	• For pollination • For seed dispersal
7. What is meant by a 'stable community'?	• Population sizes remain fairly constant • Because all the species and environmental factors are in balance
8. List abiotic factors that can affect a community	• **light intensity** • **temperature** • **moisture levels** • soil pH and mineral content • wind intensity and direction • **carbon dioxide levels for plants** • oxygen levels for aquatic animals.
9. List biotic factors that can affect a community	• **food** • **new predators arriving** • **new pathogens** • competition
Adaptations	
10. What are adaptations?	**Features organisms have to help them survive**
11. List 3 types of adaptation	• Structural (what it looks like) • Behavioural (what it does) • Functional (how it works)
12. List 3 extreme environments organisms could live in	• **High temperature** • **High pressure** • **High salt concentration**
13. What are extremophiles?	**Organisms which live in extreme conditions**

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14. Explain adaptations of a polar bear 	• **Thick fur to keep warm** • **Thick layer of fat to keep warm** • Small surface area to volume ratio to reduce heat loss • **White fur to camouflage** • **Sharp teeth and claws to kill and eat seals** • **Excellent sense of smell to detect seals** • **Hibernate in winter to avoid worst weather conditions** • **Large surface area of feet to walk on snow**
15. Explain adaptations of a camel 	• **Sandy colour to camouflage** • **Long eyelashes to keep sand out of its eyes** • **Hooves to walk on hot sand** • Body has a small surface area to volume ratio to reduce heat loss at night and heat gain in the day • Large surface area of legs to increase heat loss • **Very little sweat and urine made to reduce water loss** • **Large surface area of hooves so don't sink in sand**
16. Explain adaptations of a cactus 	• **Long or spread out roots to absorb water** • **Stores water in its stem** • **Spines to stop animals eating it** • **Thick waxy layer to reduce water loss** • Stomata only open at night to reduce water loss
Food chains and predator/prey relationships	
17. What do the arrows in a food chain show?	**Energy and nutrients**
18. What do we call organisms which make food?	**Producers**
19. Which organisms are producers?	**Plants and green algae**

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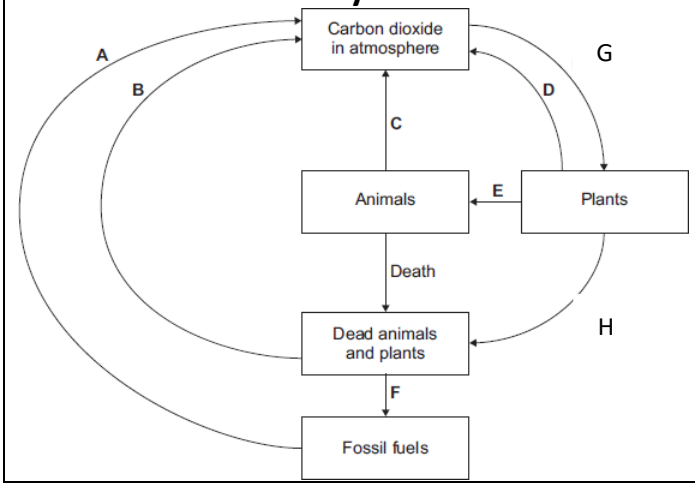
20. What do food chains start with?	**Producer**
21. Name the process plants use to make their food	**Photosynthesis**
22. What do primary consumers do?	**Eat producers**
23. What do secondary consumers do?	**Eat primary consumers**
24. What do tertiary consumers do?	**Eat secondary consumers**
25. What type of organism are primary, secondary and tertiary consumers?	**Animals**
26. What are predators?	**Animals which kill and eat other animals**
27. What are prey?	**Animals which get killed and eaten by other animals**
28. Describe the predator-prey cycle	• Number of prey increases • So more food for predators, so number of predators increases • More predators so more prey are killed • So number of prey decreases • Less prey, so less food for predators • So number of predators
Carbon cycle	
29. Name the gas in the atmosphere which contains carbon	**Carbon dioxide**
30. Which type of organisms break down dead organisms and waste?	**Microorganisms (bacteria and fungi)**
31. What is decay?	**Dead organisms and waste being broken down**
32. Name the gas microorganisms produce during decay	**Carbon dioxide**
33. Why is decay important for plants?	• **It returns minerals to the soil** • **Plants need the minerals to grow**
34. Label the carbon cycle 	A: combustion **B: microbe respiration** **C: animal respiration** **D: plant respiration** **E: feeding** F: no decay **G: photosynthesis** **H: death**

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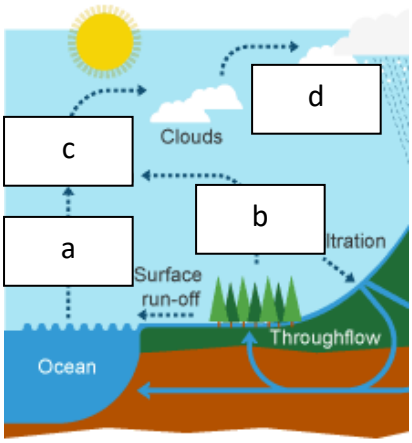
Water cycle	
35. Explain how water leaves the land and sea	• **Evaporates** • **Using energy from the sun**
36. What is transpiration?	Evaporation of water from plants
37. Explain how water vapour makes clouds	• **It cools** • **And condenses**
38. What is precipitation?	Rain/ snow/ hail
39. Where does the water on the land eventually go to?	The sea
40. Label the diagram of the water cycle  	**a. Evaporation** b. Transpiration **c. Condensation** **d. Precipitation**
Biodiversity	
41. What is biodiversity?	**The variety of all living organisms**
42. Why is a high biodiversity important?	**Makes ecosystems stable**
43. How are people reducing biodiversity?	• **Deforestation** • **Global warming** • **pollution**
44. How are people increasing biodiversity?	• **Breeding programs for endangered species** • **Protection of habitats** • Regeneration of habitats • **Reduction of deforestation** • **Recycling resources** • Reduction of carbon dioxide emissions • Reintroduction hedgerows.

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Human impact on the environment	
45. What is happening to the human population?	**It is increasing**
46. How has standard of living changed in the last 1000 years?	It has increased
47. What is the impact of increasing population?	• **More resources used** • **More waste produced** • **More pollution caused**
48. What causes water pollution?	Sewage, fertilisers or toxic chemicals
49. What causes air pollution?	Smoke and acidic gases
50. What causes land pollution?	Toxic chemicals, dumping waste in landfill
51. What impact does quarrying, building and landfill have?	Reduces the amount of land available to animals and plants.
52. How is carbon dioxide released into the atmosphere from peat?	• **Burning** • **Decay**
53. Why are we destroying peat bogs?	For garden compost
54. What is the impact of peat bog destruction?	Reduces the area of the habitat and reduces biodiversity.
55. Name the gas linked to global warming	**Carbon dioxide**
56. List impacts of global warming	• **Sea levels will rise** • **Biodiversity may reduce** • **Species may spread further apart or closer together**
57. List reasons for deforestation	• **Provide land for cattle** • **Provide land for rice fields** • **Grow crops for biofuels**
58. List impacts of deforestation	• **Loss of habitat for animals and plants** • **Species could become extinct** • **Increase in carbon dioxide levels, so increase in global warming**

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