Ecology

Answers

GCSE science knowledge recall

This topic online

Q	Answer	Remember
1	ecosystem	Community = all the living things; ecosystem = community plus its surroundings.
2	community	A population is one species; a community is many species together.
3	light	Animals compete for food, mates and territory instead.
4	interdependence	Remove one species and the effects can ripple through the whole community.
5	abiotic	A- means 'not': abiotic factors are non-living, such as temperature, moisture and pH.
6	structural	Structural = body shape or parts; behavioural = what it does; functional = body processes.
7	extremophiles	-phile means 'lover of' - these organisms love extremes. Many are bacteria.
8	photosynthesis	Almost all food chains start with the Sun's light energy being captured by plants or algae.
9	primary consumers	Secondary consumers eat primary consumers, and so on up the chain.
10	prey	More food appears first, then the predators catch up - so the predator peak lags behind.
11	quadrat	Place quadrats at random coordinates to avoid bias.
12	transect	Use a transect to see change, e.g. from a shady wood edge out into a sunny field.
13	respiration	Combustion of fuels also releases carbon dioxide, but it is not a life process.
14	decomposers	Most decomposers are bacteria and fungi.
15	condensation	Evaporation goes up, condensation makes clouds, precipitation comes back down.
16	increases	Warmth, water and oxygen speed decay - so compost heaps are kept warm, damp and turned.
17	methane	Biogas generators turn food and animal waste into a fuel for cooking and heating.
18	biodiversity	High biodiversity makes an ecosystem more stable.
19	sulfur dioxide	Acid rain damages trees and makes lakes too acidic for fish.
20	carbon dioxide	Peat stores carbon locked up for thousands of years; decaying or burning it releases it.
21	biofuels	Fewer trees means less carbon dioxide taken in by photosynthesis.

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Q	Answer	Remember
22	methane	Methane traps heat even more strongly than carbon dioxide, molecule for molecule.
23	Loss of habitat (e.g. from rising sea levels), species moving to new areas, changes to migration patterns, or reduced biodiversity.	Species that cannot move or adapt fast enough may become extinct.
24	breeding programmes	Other ways to protect biodiversity: hedgerows, field margins and reducing deforestation.
25	trophic level	Level 1 is the producers; apex predators sit at the top.
26	pyramid of biomass	It is almost always pyramid-shaped because biomass is lost at every step.
27	10%	That is why food chains rarely have more than four or five levels.
28	Some is egested as faeces, some is lost as carbon dioxide and water in respiration, or some is lost as urea in urine.	Most glucose is used in respiration, so it ends up in the air, not in new body tissue.
29	food security	Rising populations, new pests and changing diets all threaten food security.
30	Fusarium	It is grown in big fermenters on glucose syrup, with aerobic conditions.

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