

SB9a Ecosystems

Word	Pronunciation	Meaning
abundance		A measure of how common something is.
community		All the different organisms living and interacting with one another in a particular area.
ecosystem		An area in which all the living organisms and all the non-living physical factors in an area form a stable relationship that needs no input from outside the area to remain stable.
food web		A diagram of interlinked food chains. It shows how the feeding relationships in a community are interdependent.
habitat		The place in which an organism lives, e.g. woodland or sea shore.
interdependent		When organisms in an area need each other for resources, e.g. for food and shelter.
population		A group of one species living in the same area.
quadrat	<i>qwod-rat</i>	A square frame of known area, such as 1 m ² , that is placed on the ground to get a sample of the organisms living in a small area.
resources		Something that an organism needs to stay alive such as food, water and space.
sample		A small portion of an area or population.

SB9b Energy transfer

Word	Pronunciation	Meaning
biomass		Mass of tissues in an organism.
biotic (factor)	<i>bi-ot-ick</i>	Factors caused by living organisms in an environment, such as competition or predation.
pyramid of biomass		Diagram showing the amount of biomass at different trophic levels of a food chain.
Sankey diagram		A diagram showing energy transfers, where the width of each arrow is proportional to the amount of energy the arrow represents.
trophic level	<i>trOh-fick level</i>	Feeding level in a food chain, such as producer or primary consumer.

SB9c Abiotic factors and communities

Word	Pronunciation	Meaning
abiotic factors	<i>ay-bi-ot-ick</i>	Non-living conditions that can influence where plants or animals live (e.g. temperature, the amount of light).
adaptation	<i>ad-ap-tay-shun</i>	The features of an organism that enable it to do a certain function (job).

belt transect		A line in an environment along which samples are taken to measure the effect of an abiotic factor on the distribution of organisms.
distribution		The places in which a certain organism can be found in an area.
drought	<i>drowt</i>	Lack of water.
pollutant	<i>poll-oo-tant</i>	A substance that harms living organisms when released into the environment.
pollution	<i>poll-oo-shun</i>	Harm caused to the environment, such as by adding poisonous substances or by abnormally high amounts of a substance.

SB9d Biotic factors and communities

Word	Pronunciation	Meaning
biodiversity		The variety of species in an area.
biotic factors	<i>bi-ot-ick</i>	Living components (the organisms) in an ecosystem.
compete	<i>com-peat</i>	When organisms interact to get a limited resource that they need.
competition	<i>com-pet-i-shun</i>	When organisms need the same resources as each other, they struggle against each other to get those resources. We say that they 'compete' for those things.
predation	<i>pre-day-shun</i>	When one animal species kills and eats another animal species.
predator–prey cycle		The regular variation in numbers of predators and numbers of prey within a feeding relationship.

SB9e Assessing pollution

Word	Pronunciation	Meaning
aquatic	<i>a-qua-tick</i>	Living in water.
blackspot fungus		Pathogen of roses that is killed by acidic air pollution.
eutrophication		Adding more nutrients to an ecosystem than it normally has.
indicator species		Organism whose presence indicates the presence or absence of certain types of pollution.
invertebrate		Animal without bones, such as an insect or worm.
lichen	<i>ly-ken</i> or <i>litch-en</i>	A mutualistic relationship between a fungus and an alga. The presence of some species can indicate different levels of air pollution.
pollution	<i>poll-oo-shun</i>	Harm caused to the environment, such as by adding poisonous substances or abnormally high amounts of a substance.
sewage		Human waste collected for treatment.

SB9f Parasitism and mutualism

Word	Pronunciation	Meaning
host		An individual that can be infected by a certain pathogen.
mutualism	<i>mew-tew-a-lism</i>	A relationship between individuals of different species where both individuals benefit, e.g. by getting more food or shelter than if they were on their own.
parasite		An organism that lives on or in a host organism and takes food from it while it is alive.
parasitism		A feeding relationship in which a parasite benefits and its host is harmed.

SB9g Biodiversity and humans

Word	Pronunciation	Meaning
eutrophication		The addition of more nutrients to an ecosystem than it normally has.
fish farming		Growing fish in a contained area, usually to supply humans with food.
indigenous	<i>in-dij-en-us</i>	Organisms that have always been in an area. (Another word for native.)
native		See indigenous.
non-indigenous	<i>non-in-dij-en-us</i>	Organisms that have been introduced to an area where they haven't been before.
overfishing		Taking more fish from a population than are replaced by the fish reproducing so that the population number falls each year.

SB9h Preserving biodiversity

Word	Pronunciation	Meaning
captivity		Keeping something in unnatural surroundings, such as animals in a zoo.
conservation	<i>con-ser-vay-shun</i>	The protection of an area or species to prevent damage.
endangered		An area or species that is at great risk of destruction.
reforestation		Planting new forests where old forests have been cut down.

SB9i Food security

Word	Pronunciation	Meaning
agricultural input		Something needed for growing food, such as farm equipment, fertilisers or pesticides for crops.
biofuel		Fuel produced from biomass.
climate change		Change in weather patterns around the world.
food security		Having access to enough safe and healthy food at all times.
sustainability		Ability to continue something, such as food production, at the same level without negative effects now or in the future.
vector (disease)	<i>vek-tor</i>	Something that transfers things from one place to another, for example an organism that carries a pathogen from one infected person to another, such as the mosquito that carries the malaria protist.
yield		The amount of useful product that you can get from something.

SB9j The water cycle

Word	Pronunciation	Meaning
desalination		A process that produces fresh drinking water by separating the water from the salts in salty water.
distillation		The process of separating a liquid from a mixture by evaporating the liquid and then condensing it (so that it can be collected).
potable		Suitable for drinking.
water cycle		A sequence of processes by which water moves through abiotic and biotic parts of an ecosystem.

SB9k The carbon cycle

Word	Pronunciation	Meaning
biomass		The total mass in living organisms, usually shown as the mass after drying.
carbon cycle		A sequence of processes by which carbon moves from the atmosphere, through living and dead organisms, into sediments and into the atmosphere again.
decay		A process in which complex substances in dead plant and animal biomass are broken down by decomposers into simpler substances.
decomposer		An organism that feeds on dead material, causing decay.
faeces	<i>fee-sees</i>	Undigested food that forms a waste material.
fossil fuel		A fuel formed from the dead remains of organisms over millions of years, i.e. coal, oil and natural gas.

SB9I The nitrogen cycle

Word	Pronunciation	Meaning
crop rotation		Where a different crop is planted in the same field each year in a 3- or 4-year cycle, such as potatoes, oats, beans and cabbages. This helps to control the build-up of soil pests for each crop.
manure	<i>man-yure</i>	A mixture containing animal waste that is added to soil to improve its fertility.
nitrate		A compound that contains nitrogen in the form of a nitrate ion.
nitrogen cycle		A sequence of processes by which nitrogen moves from the atmosphere through living and dead organisms, into the soil and back to the atmosphere.
nitrogen-fixing bacteria		Bacteria that can take nitrogen from the atmosphere and convert it to more complex nitrogen compounds such as ammonia.

SB9m Rates of decomposition

Word	Pronunciation	Meaning
compost		Waste vegetable material that has been decomposed for use in increasing the fertility of garden soil.
decomposer		Microorganism that breaks down dead plant and animal tissue and animal waste as it feeds and grows. Examples include fungi and bacteria.
fertility (of soil)		The nutrient content of a soil, which affects how well plants grow.
irradiate		Exposing something to ionising radiation, for example using gamma rays to kill decomposers in certain foods.
preservation		Keeping something from being damaged.