Classification, biodiversity and conservation

A-Level Biology · Vocabulary in context

Word	Example
species /'spi:si:z/	Lions and tigers are different **species**.
classification /ˌklæsɪfɪ'keɪʃn/	**Classification** sorts emails into spam and not spam.
domain /də'meɪn/	All life is sorted into three groups, each called a **domain**.
Archaea /ɑ:'kɪə/	**Archaea** are single cells that often live in very hot or salty places.
Bacteria /bæk'tɪərɪə/	**Bacteria** are single cells with no nucleus.
prokaryote /'prɒkərɪəʊt/	A bacterium is a **prokaryote**: it has no nucleus.
cell wall /sel wɔ:l/	A **cell wall** gives a plant cell its shape.
Eukarya /'ju:kərɪə/	Plants, animals and fungi all belong to the **Eukarya**.
taxonomic hierarchy /ˌtæksə'nɒmɪk 'haɪərɑ:ki/	The **taxonomic hierarchy** runs from domain down to species.
kingdom /'kɪŋdəm/	Animals belong to one **kingdom**, and plants to another.
phylum /'faɪləm/	All animals with a backbone belong to one **phylum**.
class /klæs/	Mammals form a **class**.
order /'ɔ:də/	Cats, dogs and bears belong to the same **order**.

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family /'fæmɪli/	Lions and tigers belong to the cat **family**.
genus /'dʒenəs/	Lions and tigers belong to the same **genus**, Panthera. Panthera
Protoctista /'prəʊtəʊktɪstə/	Many algae belong to the **Protoctista**.
Fungi /'fʌŋgi/	Mushrooms and yeasts belong to the **Fungi**.
Plantae /'plænti:/	Trees and grasses belong to the **Plantae**.
Animalia /ˌænɪ'meɪlɪə/	Insects, fish and humans belong to the **Animalia**.
nucleic acid /nju:'klɪɪk 'æsɪd/	DNA and RNA are both a **nucleic acid**. DNA RNA
single-stranded /'sɪŋgl 'strændɪd/	RNA is **single-stranded**: it has only one chain. RNA
double-stranded /'dʌbl 'strændɪd/	DNA is **double-stranded**: two chains twist around each other. DNA
ecosystem /'i:kəʊsɪstəm/	A pond is an **ecosystem**.
niche /ni:ʃ/	Each species has its own **niche**: its role and what it eats.
biodiversity /ˌbaɪəʊdaɪ'vɜ:sɪti/	A rainforest has high **biodiversity**.
habitat /'hæbɪtæt/	A pond is the **habitat** of frogs.
abundance /ə'bʌndəns/	The **abundance** of a species is how many of it live in an area.
random sampling /'rændəm 'sæmplɪŋ/	**Random sampling** avoids choosing only the best places.

Word	Example
quadrat /'kwɒdræt/	Count the daisies inside the **quadrat**.
transect /træn'sekt/	We put quadrats along a **transect** from the shore to the woods.
mark-release-recapture /mɑːk rɪ'liːs rɪ'kæptʃə/	**Mark-release-recapture** estimates how many animals live in an area.
biotic factor /baɪ'ɒtɪk 'fæktə/	Predators are a **biotic factor**: they are living.
abiotic factor /ˌæbɪ'ɒtɪk 'fæktə/	Temperature is an **abiotic factor**: it is not living.
correlation /ˌkɒrɪ'leɪʃn/	There is a **correlation** between light and plant height, but that does not prove one causes the other.
Simpson's index of diversity /'sɪmpsnz 'ɪndeks ɒv daɪ'vɜːsɪti/	A high **Simpson's index of diversity** means many species in even numbers.
Spearman's rank correlation	**Spearman's rank correlation** tests whether two sets of ranks are linked.
extinct /ek'stɪŋkt/	The dodo is **extinct**: none are left alive.
climate change /'klaɪmət tʃeɪndʒ/	**Climate change** makes some places hotter and drier.
zoo /zuː/	A **zoo** can breed rare animals and later return them to the wild.
botanic garden /bə'tænɪk 'gɑːdn/	A **botanic garden** grows rare plants to protect them.
endangered species /en'deɪndʒəd 'spiːsiːz/	The giant panda was an **endangered species**.

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Word	Example
conservation /ˌkɒnsə'veɪʃn/	**Conservation** protects animals, plants and their habitats.
seed bank /siːd bæŋk/	A **seed bank** stores seeds in the cold for many years.
in vitro fertilisation /ɪn 'vɪtrəʊ ˌfɜːtɪlaɪ'zeɪʃn/	**In vitro fertilisation** joins egg and sperm in a lab dish.
embryo transfer /'embrɪəʊ 'trænsfɜː/	In **embryo transfer**, an embryo of a rare animal is put into a common animal's womb.
surrogacy /sə'rɒgəsi/	In **surrogacy**, another mother carries the baby.
invasive species /ɪn'veɪsɪv 'spiːsiːz/	Rabbits became an **invasive species** in Australia.
species richness /'spiːsiːz 'rɪtʃnəs/	A forest with ten kinds of tree has higher **species richness** than one with six.