

1. Test your vocabulary by matching each term to its correct definition, as identified by its preceding letter code.

adaptation.....

allopatric speciation.....

biodiversity.....

bioinformatics.....

binomial nomenclature.....

conservation.....

diversity indices.....

domain.....

ex situ conservation.....

fitness.....

in-situ conservation.....

natural selection.....

phylogeny.....

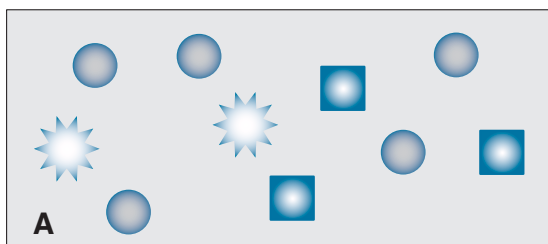
reproductive isolation.....

species.....

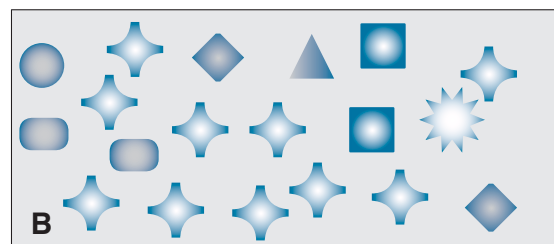
sympatric speciation.....

- A** Statistics used to quantify the heterogeneity of a system. Often used in ecological studies to assess environmental health.
- B** A formal system of naming species of organisms by giving each a Latin name composed of two parts
- C** Speciation in which the populations are physically separated.
- D** The number or variety of species living within given ecosystem, biome, or on the entire Earth. Incorporates species richness as well as genetic and habitat diversity.
- E** The science of collecting, storing and analysing biological data using computer science.
- F** A heritable characteristic of a species, which is shaped by natural selection and equips the species for its functional role in the environment.
- G** Conservation methods that operate away from the natural environment (e.g. zoo breeding programmes).
- H** The evolutionary history of a species or other taxon, hypothesised on the basis of morphological or molecular data.
- I** A measure of an organism's genetic contribution to the next generation.
- J** The act of preserving, protecting, or restoring something (e.g. an organism or habitat).
- K** The situation in which members of a group of organisms breed with each other but not with members of other groups.
- L** Speciation as a result of reproductive isolation without any physical separation of the populations, i.e. populations remain within the same range.
- M** Group of organisms capable of breeding together to produce viable and fertile offspring.
- N** The process by which heritable traits become more or less common in a population through differential survival and reproduction.
- O** Conservation efforts that take place on site involving whole ecosystem management.
- P** The highest taxonomic rank in the revised classification of life based on recognition of prokaryote diversity.

2. Describe in words the species richness and evenness of ecosystem A and B (below):



A _____



B _____

answers

1. adaptation (F), allopatric speciation (C), biodiversity (D), bioinformatics (E), binomial nomenclature (B), conservation (J), diversity indices (A), domain (P), *ex-situ* conservation (G), fitness (I), *in-situ* conservation (O), natural selection (N), phylogeny (H), reproductive isolation (K), species (M), sympatric speciation (L)
2. A: High species evenness but with a low species richness.
B: Low species evenness but high species richness.