

CB4a – Evidence for human evolution

Word	Pronunciation	Meaning
Ardi		Nickname for a 4.4-million-year-old fossilised specimen of <i>Ardipithecus ramidus</i> .
binomial system	<i>by-nO-mee-al sis-tem</i>	System of naming organisms using two Latin words.
evolution	<i>e-vol-oo-shun</i>	A change in one or more characteristics of a population over a long period of time.
Lucy		Nickname for a 3.2-million-year-old fossilised specimen of <i>Australopithecus afarensis</i> .
species	<i>spee-shees</i> or <i>spee-sees</i>	A group of organisms that can reproduce with each other to produce offspring that will also be able to reproduce. Organism names have two Latin words – the first is its genus and the second is its species.

CB4b – Darwin's theory

Word	Pronunciation	Meaning
ancestor	<i>an-ses-ter</i>	An organism from which more recent organisms are descended.
antibiotic		Medicine that helps people recover from a bacterial infection by killing the pathogen.
competition	<i>com-pet-ish-un</i>	There is competition between organisms that need the same things as each other (such as food). We say that they 'compete' for those things.
genetic variation	<i>jen-et-ick</i> <i>vair-ee-ay-shun</i>	Differences between organisms caused by differences in genes and passed on to offspring by their parents through reproduction. Also called inherited variation.
natural selection		A process in which certain organisms are more likely to survive and reproduce than other members of the same species, because they possess certain genetic variations.
resistant		Unaffected or less affected by something.

CB4c – Classification

Word	Pronunciation	Meaning
classification		Sorting things into groups.
domain		The three main groups that organisms are now sorted into: Archaea, Bacteria and Eukarya.
genus		A group of similar organisms. The genus name is the first word in the scientific name for a species (the second word is the 'species name'). Different closely related species belong to the same genus.
kingdom		There are five kingdoms into which organisms are divided: plants, animals, fungi, protists and prokaryotes.
species	<i>spee-shees</i> or <i>spee-sees</i>	A group of organisms that can reproduce with each other to produce offspring that will also be able to reproduce. Organism names have two Latin words – the first is its genus and the second is its species.

CB4d – Breeds and varieties

Word	Pronunciation	Meaning
artificial selection		When people choose organisms with certain characteristics and use only those ones for breeding.
breed		Group of animals of the same species that have characteristics that make them different to other members of the species.
disease resistance		Unaffected or less affected by a certain disease.
gene	<i>jeen</i>	Section of the long strand of DNA found in a chromosome, which often contains instructions for a protein.
genetic engineering		Altering the genome of an organism, often by adding genes from another species. Also called genetic modification.
genetically modified organism (GMO)		Organism that has been produced using genetic engineering.
genome	<i>jee-nOhm</i>	All the DNA in an organism. Each body cell contains a copy of the genome.
GMO		Short for 'genetically modified organism'.
selective breeding		When humans choose an organism that has a certain characteristic and then breed more of these organisms, making that chosen characteristic more and more obvious.
variety		Group of plants of the same species that have characteristics that make them different to other members of the species.
yield		The amount of useful product that you can get from something.

CB4e – Genes in agriculture and medicine

Word	Pronunciation	Meaning
allele	<i>a-leel</i>	Most genes come in different versions, called alleles. So a gene for eye colour may have a version (allele) that can cause dark eyes and an allele that can cause pale eyes.
base		There are four substances called bases that help make up DNA, often shown by the letters A, C, G and T. Pairs of bases form 'links' between two 'spines' formed of phosphate groups and a type of sugar.
diabetes		Disease in which the body cannot control the blood glucose concentration at the correct level.
insulin	<i>in-syu-lin</i>	The hormone that decreases blood glucose concentration. Used in the treatment of type 1 diabetes.
ligase	<i>lie-gaze</i>	An enzyme that joins two DNA molecules together.
plasmid	<i>plaz-mid</i>	A small loop of DNA found in the cytoplasm of bacteria.
recombinant DNA		DNA made by joining two sections of DNA together.
restriction enzyme		An enzyme that cuts DNA molecules into pieces.
sticky end		A short section of single-stranded DNA found at the end of a section of DNA that has been cut by a restriction enzyme.

Word	Pronunciation	Meaning
type 1 diabetes		Type of diabetes in which the pancreas does not produce insulin.
vector		Anything that transfers material from one organism to another.