CB4 Natural Selection and Genetic Modification

CB4a Evidence for human evolution

Step	Learning outcome	Had a look	Nearly there	Nailed it!
4th	Define ‘evolution’.	☐	☐	☐
5th	Recognise binomial species names.	☐	☐	☐
7th	Explain how evidence from fossils and stone tools supports current ideas about human evolution.	☐	☐	☐
5th	Recall how stone tools are dated from their environment.	☐	☐	☐
6th	Describe how stone tools created by human-like species have developed over time.	☐	☐	☐
6th	Describe the fossil evidence for human-like species that lived 4.4, 3.2 and 1.6 million years ago.	☐	☐	☐

CB4b Darwin’s theory

Step	Learning outcome	Had a look	Nearly there	Nailed it!
4th	Recall the cause of genetic variation.	☐	☐	☐
5th	Describe how adaptations allow organisms to survive.	☐	☐	☐
8th	Explain how natural selection allows some members of a species to survive better than others when conditions change.	☐	☐	☐
9th	Explain how natural selection can lead to the evolution of a new species.	☐	☐	☐
10th	Explain how the development of resistance in organisms supports Darwin’s theory.	☐	☐	☐

CB4c Classification

Step	Learning outcome	Had a look	Nearly there	Nailed it!
5th	Describe how organisms are classified into smaller and smaller groups (based on their characteristics).	☐	☐	☐
6th	Identify genus and species from a binomial name.	☐	☐	☐
6th	Identify an organism as a member of one of the five kingdoms.	☐	☐	☐
7th	Describe what genetic analysis is.	☐	☐	☐
9th	Explain why biologists often now classify organisms into three domains.	☐	☐	☐

CB4d Breeds and varieties

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	Describe why new breeds and varieties are created.	☐	☐	☐
	Describe what is meant by a ‘genetically modified organism’.	☐	☐	☐
	Describe how selective breeding is carried out.	☐	☐	☐
	Explain the impact of selective breeding on domesticated plants and animals.	☐	☐	☐

CB4e Genes in agriculture and medicine

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	**H** Describe the main stages of genetic engineering.	☐	☐	☐
	Recall some uses of selectively bred organisms (in agriculture).	☐	☐	☐
	Recall some uses of genetically engineered organisms (in agriculture, in medicine).	☐	☐	☐
	Evaluate the benefits and risks of using selective breeding and genetic engineering to produce new varieties and breeds.	☐	☐	☐