CB4 Natural Selection and Genetic Modification

RAG rate your confidence levels at the start and end of each topic:

R= Not Confident **A= Fairly confident (need more practice/ to review)** **G= Very confident**

CB4a Evidence for human evolution

Step	Learning outcome	Start of topic	End of Topic
	Define ‘evolution’.		
	Recognise binomial species names.		
	Explain how evidence from fossils and stone tools supports current ideas about human evolution.		
	Recall how stone tools are dated from their environment.		
	Describe how stone tools created by human-like species have developed over time.		
	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	Start of topic	End of Topic
	Recall the cause of genetic variation.		
	Describe how adaptations allow organisms to survive.		
	Explain how natural selection allows some members of a species to survive better than others when conditions change.		
	Explain how natural selection can lead to the evolution of a new species.		
	Explain how the development of resistance in organisms supports Darwin’s theory.		

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CB4c Classification

Step	Learning outcome	Start of topic	End of Topic
	Describe how organisms are classified into smaller and smaller groups (based on their characteristics).	☐	☐
	Identify genus and species from a binomial name.	☐	☐
	Identify an organism as a member of one of the five kingdoms.		
	Describe what genetic analysis is.		
	Explain why biologists often now classify organisms into three domains.		

CB4d Breeds and varieties

Step	Learning outcome	Start of topic	End of Topic
	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	Start of topic	End of Topic
	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.		

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