

B3 – Core Questions

1	What is an adaptation?	A characteristic of an organism that improves its chances of surviving and reproducing.
2	How do big paws help a polar bear to survive in an Arctic environment?	Large surface area to stop it sinking into the snow / make it easier to walk.
3	Give 3 examples of animal adaptations for a desert environment?	Big ears, camouflaged fur, short fur, nocturnal, fat storage, long eyelashes, water retention
4	What is Surface Area?	The total exposed area of an object
5	Give 3 adaptations of a polar bear	Thick fur, layer of fat, small ears, White, Big paws
7	Give 3 adaptations of a camel	Fat stored in hump, wide feet, light/beige coloured fur, long eyelashes, shedding fur
9	Give 3 adaptations of plants that grow in the desert	Water storage tissue, reduced number of stomata, curled leaves, deep root systems, wide root system, thick waxy cuticle, spines
10	How do small, curled leaves help a desert plant to survive?	To prevent water loss in dry environments
11	What is a genetic mutation?	A random change in the DNA sequence of an organism
12	What is Natural Selection?	The process where the best-adapted individuals survive longer and are more likely to pass on their traits to offspring.
13	What is evolution?	A long-term change in the characteristics of a population as a result of natural selection.

14	Give an example of traits in humans that are only inherited	Eye colour, hair colour, blood type, genetic disorders, attached/non-attached ear lobes
15	Which theory did Darwin develop?	Evolution by Natural Selection
16	What species did Darwin study on the Galapagos islands when he developed his theory?	Finches
17	What did Darwin notice was different about the animal he studied when developing his theory?	Each species of finch had a different shaped beak
18	What is a population?	A group of organisms of the species living in the same area
19	What was Lamarck's Theory of Evolution?	The more a characteristic is used, the bigger and stronger it becomes. This is passed to its offspring.
20	Give 2 reasons why people did not initially believe Darwin?	Darwin's theory conflicted with religious views, Darwin did not have enough evidence
21	What evidence do we have for evolution?	The fossil records
22	Why are there gaps in the fossil record?	Remains being destroyed by geological activity, areas undiscovered or early life forms having soft bodies with no bones
23	What is extinction?	When no remaining individuals of a species is alive
24	What is biodiversity?	the variety of species found in an ecosystem.
25	Give three examples of Human impacts on biodiversity	Deforestation, Increasing population and farming