Upper Key Stage 2: Adaptations

Key Vocabulary

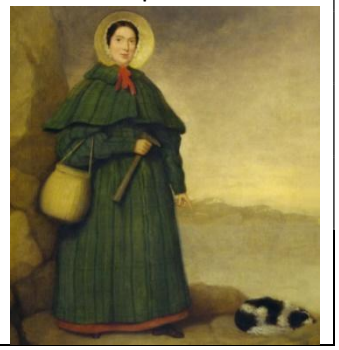
offspring	An animal's young or a person's child.
reproduction	The production of offspring by a sexual or asexual process.
vary	To differ in size, amount, degree, or nature from something else of the same general class.
characteristics	A feature or quality belonging typically to a person, place, or thing and serving to identify them.
suited	When something is right or appropriate for a particular purpose, or situation.
adapted	To alter or modify something to make it suitable for a new use or purpose.
environment	The surroundings or conditions in which a person, animal or plant lives.
inherited	A quality, characteristic or predisposition that comes genetically from parents or ancestors.
species	A set of animals or plants in which the members have similar characteristics to each other and can breed with each other.
fossils	The shape of a bone, a shell, or a plant or animal that has been preserved in rock for a very long time.
habitat	The natural environment in which an animal or plant usually lives.
evolve	To change or develop gradually.
behaviour	The way in which an animal or person behaves in response to a particular situation.
structure	The way a person or animal's body is made up, for example bone structure.

What are adaptations?

- Adaptation is the process which enables organisms to adjust to their environment in order to ensure their survival.
- This process is sometimes referred to as the evolution of species.
- Adaptations often occur because of a genetic mutation.

Mary Anning

Mary Anning was a famous fossil hunter and collector. She found and identified many pre-historic fossils from the time of the dinosaurs and sold them to make money for her family.
Anning was not a trained scientist, but taught herself to read and write then read all about anatomy – her parents were too poor to send her to school. It was very unusual for women at this time to become 'proper' scientists.
She was one of the earliest fossil hunters to identify these pre-historic fossils, and she shared her specimens and impressive knowledge about them with scientists at the time. She also recognised that the animals in her fossils were closely related to current animals.
Anning was born and grew up in Lyme Regis, on the south coast of England. This is an area with lots of fossils.



The three types of adaptation

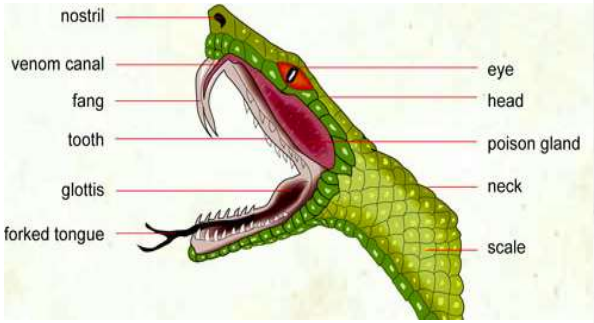
Structural Adaptations

Physical features of an organism that enable them to survive in their environment (e.g. a penguin has blubber to protect itself from freezing temperatures).

- They have overlapped feathers that trap warm air to survive freezing conditions.
- They are blubbery and low to ground so little air can circulate around them.
- Nasal passages minimize heat loss.

Physiological Adaptations

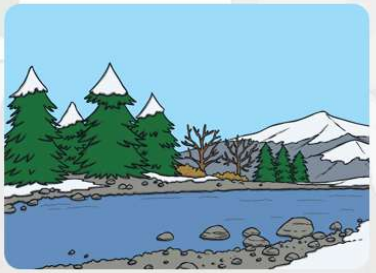
Internal and/or cellular features of an organism that enable them to survive in their environment (e.g. snakes produce poisonous venom to ward off predators and to capture prey).



Behavioural Adaptations

Actions of an organism that enable them to survive in their environment (e.g. bears hibernate in winter to escape the cold temperatures and preserve energy).

Winters are long and cold in Canada. This makes it very difficult for bears to find food.



If bears did not hibernate, they would starve.

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