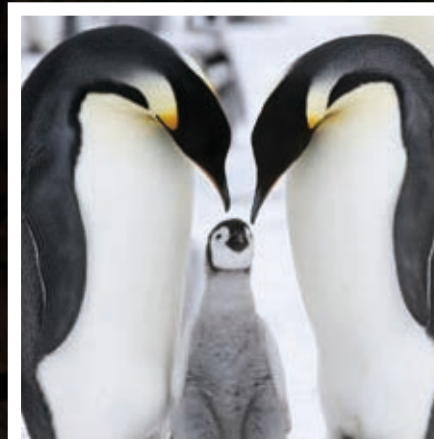
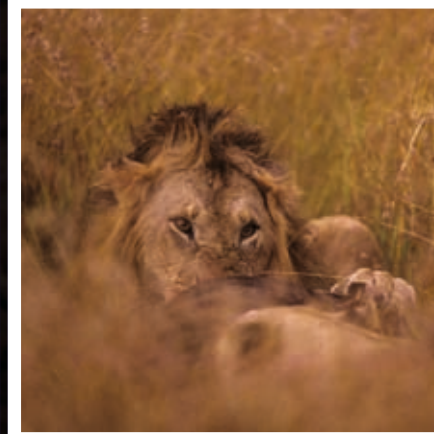


Springboard^{into} Comprehension 5

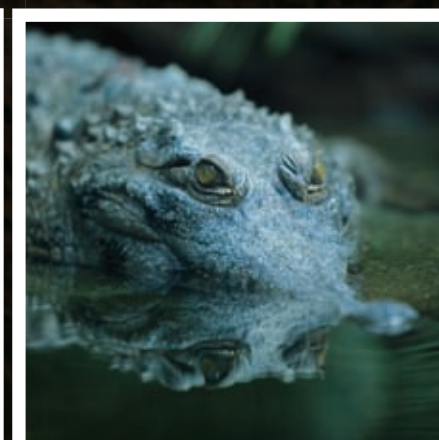
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Explanation



Animal Adaptations



Written by Vaishali Batra



Animal Adaptations



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Written by Vaishali Batra

Thrive and Survive

Animals come in all shapes and sizes, and they survive in all kinds of different habitats. Some live at the icy cold polar regions, while others live in hot, dry deserts. Some animals live on mountain tops, while others swim the depths of the sea. All these habitats provide food, water, and shelter that animals need to thrive and survive.

Animals depend on their specialized behaviours and physical features to help them live in their particular habitat. These behaviours and features are called adaptations. Adaptations help animals find food, build homes, and stay safe from animals that hunt them. For example, fish have fins so that they can swim in water. They swim to find food and avoid being eaten. Earth's climate and landscape has changed over millions of years, so animal habitats have changed, too. Consequently, over time, animals have changed to adapt to these new habitats.

Animals adapt to their habitats in various ways. Some animals adapt their bodies. These changes are called **physical adaptations**. Animals might develop new ways to get their food or stay safe. For example, an animal might grow stronger legs to run faster. Some animals change their appearance so that they look more like the background. This is called **camouflage**.

Some animals adapt their ways of living in their environment. Changes like these are called **behavioural adaptations**. For example, an animal might change the times of day when it finds food, becoming active at night instead of during the day to avoid danger.

All animal species have adapted gradually over several thousands of generations. This process is called **evolution**. These adaptations give animals a better chance of survival in their changing habitat. Animals that are unable to adapt to changing conditions can face the threat of dying out.



Camouflage is an important adaptation for some animals. It allows them to blend in with their surroundings so that they are difficult to see.



African Lion

Scientific name: *Panthera leo*

Habitat: Dry grasslands in eastern and southern parts of Africa

Diet: Antelopes, buffalo, giraffes, wildebeests, animals already dead (carrion), smaller animals

African lions are fierce carnivores that live in the dry grasslands of Africa. They are skilled hunting animals, or **predators**, that hunt by stalking or ambushing their prey. African lions have special adaptations to hunt and eat their prey.

African lions have physical adaptations to help them stalk their prey. Their coat is a light golden-brown colour. This gives the lions camouflage in dry grasses and scrub vegetation. They have soft paws to creep quietly close to their prey.

Adapt-a-Fact

An African lion's claws can be drawn in, or retracted. This adaptation prevents the claws from getting blunt when the lion is walking.

An African lion's golden-brown fur allows it to blend into the background and hide from prey.

African lions are adapted to capture and eat their prey. They have powerful, muscular forelimbs and strong shoulders to run and pounce. African lions' forepaws have long, sharp claws to grab their prey. They use their razor-sharp canine teeth to bite into their prey's throat and suffocate it. African lions' back teeth have jagged edges for cutting flesh, and they have a rough tongue to scrape flesh from their prey's bones.

African lions' senses are adapted to suit their predatory lifestyle, too. Their eyes are at the front of their head. This gives them the ability to see things from two slightly different angles and judge distances accurately. This is called **binocular vision**. In bright daylight, African lions' eyes adjust so the sun is not blinding. At night, their eyes adjust to let in any available light. As a result, African lions can hunt at night, as well as during the day. African lions can move their ears to hear sounds from different directions. They also have a strong sense of smell. All of these adaptations help African lions survive.

An African lion's teeth are well adapted for attacking prey.



Two African lionesses attacking a buffalo in Kenya



African lions' claws grow in layers. As one layer of claws wears down, another sharper layer replaces it.



Arabian Camel

Scientific name: *Camelus dromedarius*

Habitat: Deserts of the Middle East, Africa, Asia, and Australia

Diet: Grasses, leaves, seeds, shrubs

Arabian camels are large, hoofed mammals. They have special physical adaptations that help them survive in the extremely hot and dry desert environment.

Food and water are scarce in the camels' habitat, so Arabian camels' bodies are adapted for retaining food and water. The hump on an Arabian camel's back stores fat. Arabian camels' bodies use this fat when there is no food. Consequently, Arabian camels can survive without eating for several weeks. Arabian camels can drink up to 100 l of water in ten minutes. Because Arabian camels do not sweat much, they do not lose much water. Therefore, Arabian camels can survive without drinking water for up to ten months.

An Arabian camel in its desert habitat



Arabian camels have adaptations to help them cope with their desert environment and the sandstorms that occur there. They have large, broad feet that do not sink in the sand. They have double rows of long eyelashes that keep sand out of their eyes. Their eyes have thin, clear membranes that act like transparent eyelids. This protects Arabian camels' eyes from sandstorms while still letting in enough light for them to see. Arabian camels' ears are small and rounded. They are located at the back of their head and are covered with hair. The hair shelters the camels' ears from sand.



A camel's long eyelashes are well adapted for keeping out sand.

Adapt-a-Fact

To cope with the extreme heat of summer in the desert, Arabian camels shed most of their hair in spring.

Physical Adaptations of a Camel

