

Animal Adaptations (Extreme Hot)

Definition

Adaptations are features and characteristics of an organism that help it to survive in its environment.

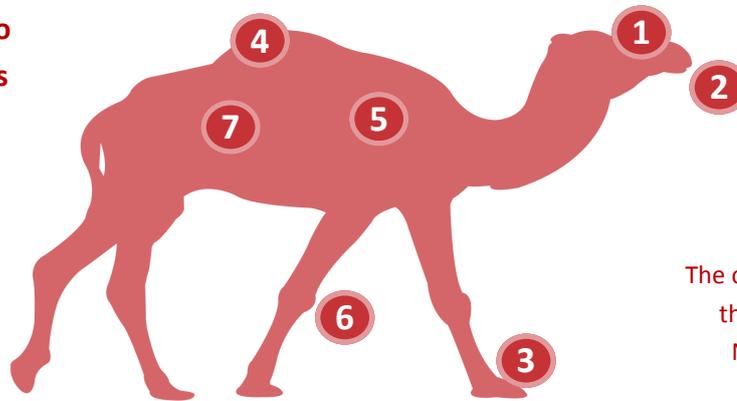
Types of Adaptation

Adaptations usually develop as a response to changes in an organism’s habitat. Over time these adaptations form part of the organism’s evolutionary history. They can be categorised as behavioural or physical adaptations. **Behavioural adaptations** are those that change the way that an organism or group of organisms act as a reaction to a particular environment. **Physical (or structural) adaptations** are that change the organism anatomically. Some organisms have adapted to such specific niches that they can actually be categorised as a different species. This is called **speciation**.

Characteristics of an extreme hot environment

- Very hot (typical day time temperature of 50°C and very dry (> 250mm annual rainfall) conditions)
- Tend to be found at low altitudes and on valley floors.
- Predominantly found between the Tropics
- High pressure, results in little or no clouds and very low precipitation.
- Competition with other organisms due to lack of vital resources, such as food, water and shelter.
- Very little variation in temperature and rainfall between the seasons
- Higher levels of variation in the diurnal conditions (hot in the day time and cold at night)

Examples of adaptations to extreme hot environments



The camel is typically found in the hot and dry climates of North and East Africa, the Middle East and Asia.

	Description	Explanation
1	Long, thick eyelashes and hairs in their ears	To protect sensitive areas during sand storms
2	Closable nostrils	Prevents the build up of sand and salt in the nose
3	Wide feet	Allows easier grip on loose sand
4	One or two humps	Stores fat to allow long distance movement with little need to feed
5	Tough, thickened skin	Tolerance of high external temperatures without burning the skin
6	Leathery skin patches on the knees	Protects the animals when they kneel and rest in hot sand
7	Ability to drink up over fifty gallons of water at once	Allows long distance movement without relying on constant water supplies