

English home learning 31.01.22

This week we will be writing an explanation text in English.

Purpose: to explain

Outcome: to write an explanation of how an animal has adapted to its environment.

Using the website below, research an animal of your choice. Use the example ideas page below to help you plan your explanation text.

https://www.coolantarctica.com/Antarctica%20fact%20file/wildlife/antarctic_animal_adaptations.php

Other websites include:

<http://interactivesites.weebly.com/animal-adaptations.html>

<https://www.bbc.co.uk/bitesize/clips/z3hxpv4>

Gathering ideas: Animal Adaptations

Physical Feature or Behaviour	How this helps the animal adapt to their environment

You will now need to create an explanation text like the one below but related to the animal you have researched.

How Polar Bears Came To Be

Amazing Adaptation

Animals thrive in a variety of habitats around the world because they have managed to change over time to benefit from the environment in which they find themselves. This change is called adaptation. An adaptation is an alteration in the animal's body or behaviour which helps it to survive in its habitat. Habitats consist of many different elements: the kinds of food and plants that grow in it; the climate and other animals that may be predators or competitors. Animals must learn to adapt to each of these factors in order to ensure the survival of the species. This fact sheet will explain how majestic polar bears came to look and behave the way they do.

Fantastic Fur

The fur of these magnificent beasts means that they are superbly adapted to the harsh conditions of the North Pole. In this inhospitable region of the world, temperatures frequently plummet to a deadly -46°C , yet polar bears thrive here. They are protected from the cold by a dense insulating underfur that acts like an impenetrable winter coat. The fur prevents almost all heat loss – in fact, adult males can quickly overheat when they run. Surprisingly, the fur is not white, as is commonly believed – it just looks that way. The reason for this is because each hair shaft is pigment-free and transparent with a hollow core that scatters and reflects light.

Supportive Skin

Polar bears have black skin over a layer of fat with an average thickness of 11.4 centimetres (4.49 inches) so that they are protected even when swimming through the icy waters of their region. This blubber is essential: wet fur is a poor insulator. This is why mother bears are usually reluctant to swim with young cubs in the spring as they do not yet have enough fat to protect them.

Protective Paws, Claws, Ears and Tail

Polar bear paws are ideally suited to the Arctic conditions as they are designed to help navigate the land and the sea. Measuring 30 centimetres across (11.81 inches), they aid movement on the ice due to footpads on the bottom of each paw. These soft bumps (papillae) grip the slippery surface and ensure a confident and secure walk. Further physical features which equip them for life in the cold are their thick, curved, sharp claws (ideal for catching and holding prey) which help to gain traction too. Their small, round ears and short, compact tails also help them to conserve the most heat possible. They truly are the masters of adaptation!

Shielding Shelters

Refuge is also provided by shelters on bitterly cold days. These impressive bears often dig deep pits in snow banks so that they can curl up in a tight ball to shield themselves from the ferocious Arctic winds. Sometimes they cover their muzzles (which radiate heat) with their thickly furred paws, thus defending themselves from the extreme cold.

Saving their Surroundings

It is apparent that polar bears have adapted to their icy habitats with ease. Physical adaptations have allowed these animals to survive, where other creatures would perish. If polar bears are to continue to thrive, we must hope that ever increasing signs of global warming do not threaten the lands of these marvellous creatures.

Comprehension task

Use the text about the polar bear above to answer these questions. Make sure your answers are written in full sentences.

Comprehension Questions: From Example Text

Paragraph	Suggested Questions:
1	<ul style="list-style-type: none">• What does adaptation mean?• What are the different elements of a habitat?• Why must animals learn to adapt to their environment?
2	<ul style="list-style-type: none">• Which word tells the reader that the polar bear is well adapted to its environment?• Why has the word 'deadly' been chosen to describe the harsh conditions of the North Pole?• Why has the author compared the fur of the polar bear to an 'impenetrable winter coat'?
3	<ul style="list-style-type: none">• Give 2 reasons why polar bear feet help them to survive the icy landscape.• What does the sentence, 'They truly are the masters of adaptation!' mean?
4	<ul style="list-style-type: none">• Find and copy 3 words that help the reader to understand how cold it is in the Arctic.• Why do polar bears curl up tight in the snow shelters?
5	<ul style="list-style-type: none">• Why has the word 'impressive' been chosen to describe polar bears in this paragraph?• Why do they cover their muzzles with their thickly furred paws?
Whole Text	<ul style="list-style-type: none">• Give 3 reasons why polar bears are the masters of adaptation.• Why might the author choose this animal when writing an explanation about animal adaptation?