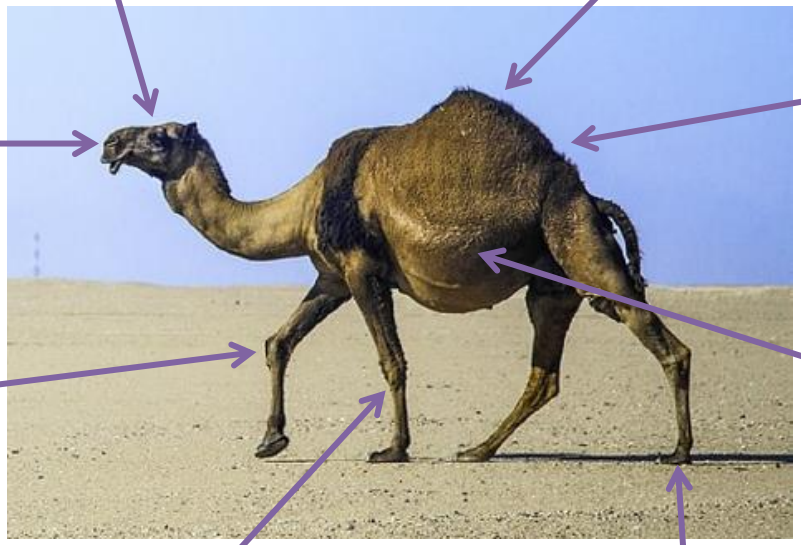
Student fact sheet - camel

Long eyelashes to keep sand out

Hump to store food as fat to provide energy for long periods of time in desert

Thin nostrils that can be closed to prevent sand blowing in



Thick fur to keep the sun's heat away during the day, but provide warmth at night

Leathery knees to help prevent burning when kneeling on hot sand

Very long intestines to reabsorb as much water as possible from foods eaten

Long, muscular legs that allow camels to walk for miles across the desert

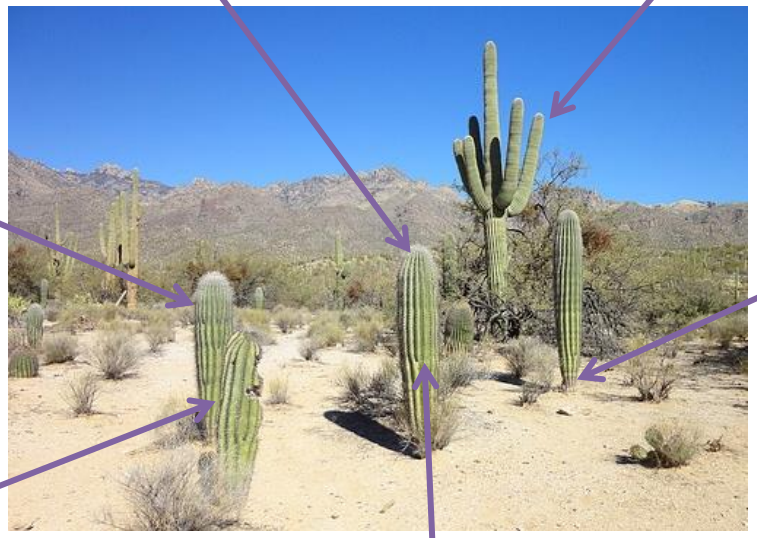
Wide feet help to spread the camel's weight and make it easier to walk on sand. Leathery pads protect from heat and act like snowshoes to help prevent it sinking

Student fact sheet - cactus

The cactus has spikes/spines instead of leaves. This is to reduce the surface area and reduce water loss through transpiration (water lost from evaporation in plants)

Having spikes protects the plants from animals that want to eat them for their water

Cacti are known as **succulents**. This means they are experts at holding onto water



Cacti (like the saguaro cactus in the picture) have two types of root system

1. A shallow network just below the surface the can soak up any rain water immediately

2. A large network of tap roots that go as far as 3 meters underground to reach the deepest groundwater

The skin is thick and waxy which helps reflect the heat and conserve (hold) water

They have large fleshy stems that can store water in times of extreme drought

Student fact sheet - thorny devil

The thorny devil is camouflaged making it difficult for predators to find it

When a thorny devil is scared, it tucks its head under its front feet. It has a bump on the back of its head that looks like another head to a predator. This bumpy head is hard to eat, so predators quickly give up

The thorny devil has a hearty appetite and can quickly consume thousands of ants per day. They tend to move to a location where they are able to just open their mouth and the ants will go marching right in. This is so they don't have to move and overheat during the warm daily temperatures

The thorny devil is covered in lots of spikes across the entire upper side of its body. These spikes are hard, and make predators not eat the thorny devil, as it is hard to swallow with all the spikes on it

To get water the thorny devil simply walks through dew-filled grass and shrubs. This particular lizard is able to drink water no matter where it hits them on their body. They have these tiny little grooves all over their body that direct the water to their mouth

It burrows in the ground at night to stay warm and regulate its temperature. During the day it hides in the shade

Using the photos and your own knowledge explain to what extent these species are adapted to live in a hot desert biome. (6 marks)




Your response:

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What a good one looks like:

Read through this answer and highlight or underline the following information so you can see how to correctly structure a PEEL answer!

Key:	
Point	
Evidence / example	
Explanation	
Link	

The hot desert is a land of extremes; extreme heat and extreme dryness therefore species must have special adaptation to survive there.

One way plants have adapted is through having special roots. The saguaro cactus, which can be seen in the photo, has two types of roots which collect water from deep underground stores and roots which collect any rain that falls on the surface immediately. They need this as the climate is very dry.

Animal species such as the camel and thorny devil pictured also have unique adaptations. The camel has humps which store fat and very long intestines that can absorb much water. They need this as the climate is very dry.

The photos all show species that have unique adaptations, however the polar bear would not be suitable for a hot desert due to its thick fur.