Name _____ Date _____

Desert survivors

How living things cope with heat, sand and very little water.

1 Learn



Deserts get hardly any rain. Days are scorching and sand blows everywhere. Desert life is adapted to it all.



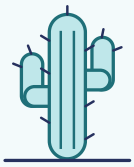
Camel

- hump stores **fat**
- long eyelashes; nostrils close
- wide feet don't sink



Fennec fox

- huge ears lose heat
- furry soles for hot sand
- hunts in the cool night



Cactus

- spines, not leaves
- waxy stem stores water
- wide, shallow roots

Worked example: how does a camel's hump help?

1. The problem: deserts are very hot, with little food or water.

2. The feature: the hump stores **fat**, not water. When food is scarce, the camel uses the fat for energy.

3. A bonus: with its fat in one hump, not spread all over like a blanket, heat escapes more easily from the rest of its body.

Flip's tip: big, thin ears let heat escape from the body. In a hot desert that keeps a fox cool, so desert foxes have **big** ears.

Warm up: write **T** for true or **F** for false.

- ☐ A camel's hump is full of water.
- ☐ A cactus's spines are a kind of leaf.
- ☐ Many desert animals rest by day.
- ☐ Big ears help a fox keep warm.

Grown-ups: the hump is the classic mix-up: it stores fat, not water. Camels can go a long time without drinking, then drink a lot quickly.

Name _____ Date _____

2 Try it together

a child and a grown-up, about 10 minutes, then a check later



The thirsty towel test

You need: 2 sheets of kitchen roll, a cup of water, a plate, and a warm, sunny spot such as a windowsill. Cling film is optional.

1. Dip both sheets in the water. Squeeze them gently so they are damp but not dripping.
2. Lay one sheet out **flat**, like a big, thin leaf. Roll the other up tightly into a **sausage**, like a thick cactus stem.
3. Put both on the plate in the warm spot. Predict: which one will dry out first?
4. Feel both after 10 minutes, then again after an hour. Write down what you notice.
5. Extra: wrap a third rolled sheet in cling film, like a cactus's waxy skin.

Sheet	My prediction	After 10 minutes	After an hour
Flat			
Rolled up			
Rolled + film			

Grown-ups: the flat sheet has much more surface open to the air, so water evaporates from it faster. A cactus has spines instead of wide leaves, and a thick, waxy stem, so it has less surface to lose water from.

3 Practise

A. Fill the gaps using the words in the box.

fat · eyelashes · nostrils · feet · night · roots

1. A camel's hump stores _____, which it uses for energy.
2. Long _____ keep sand out of a camel's eyes.
3. In a sandstorm, a camel can close its _____.
4. Wide, padded _____ stop a camel sinking into sand.
5. The fennec fox hunts at _____, when it is cooler.
6. A cactus's wide, shallow _____ soak up rain quickly.

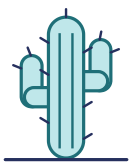
Desert survivors

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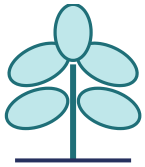
B. Is each one a body feature or a behaviour? How does it help? Fill in the table.

Adaptation	Feature or behaviour?	How does it help it survive?
a fennec fox's huge ears		
a lizard hiding under a rock at midday		
a cactus's spines		
a camel drinking lots of water at once		

C. Ring the plant that is better adapted to the desert. Explain your choice.



Plant 1



Plant 2

D. Design a new desert animal. Draw it and label **two** adaptations: one body feature and one behaviour.

Challenge

Sam says, "A camel's hump is a water tank." Is he right? What does the hump store, and how does it help?

I can… Tick when you can.

- ☐ explain how a camel is adapted to the desert
- ☐ explain why big ears keep a desert fox cool
- ☐ explain how a cactus saves water