

Habitats – Deserts

Name _____

Class _____

What you will need for this lesson: a measuring jug, 3 different types of sponges, a scissors, a black marker, some cocktail sticks, a plate either paper, plastic or china, some water and a stopwatch if you have one.

Remember to always ask an adult to help you find these items and to help you carry out the investigation!

Lesson starter

You will need an adult to help you complete this starter activity because it is a research or finding out activity.

There are several famous deserts across the world. Two of the most famous are The Sahara Desert in Africa and the Gobi Desert that stretches over Asia and Mongolia.

The Sahara Desert



The Gobi Desert

Can you find out about 5 plants or animals that live and grow in the Sahara and the Gobi deserts. If you can note down how they cope with the very dry conditions. Please write what you can in the tables on the next page.

The Sahara desert

Name of the plant or animal

Do you know how it has adapted to the dry hot weather?

The Gobi Desert

Name of the plant or animal

Do you know how it has adapted to the dry hot weather?

The Investigation

You are going to make a model of a cactus.

Remember you will need: a measuring jug, some sponges, a scissors, a black marker, some cocktail sticks, a plate either paper, plastic or china and some water.

Please make sure you ask an adult to help you!

What you need to do first (The method). Make sure you watch the video as you do this. Pause and stop it as you need!

We know that deserts are really dry, with not much rain. This means that there are very few rivers, lakes or ponds. This is a real problem for plants and animals so they have to develop special features to help them survive.



One of the most successful plants to do this is the cactus plant (When you have more than one cactus, we call them cacti). There are many different shaped cacti and we are going to look at which one stores water the best.

- On one of your pieces of sponge, draw the shape of a cactus and then cut it out with a scissors. You may need an adult to help you to do this. Here are some shapes to help you!
- Then take your cocktail sticks and start sticking them in into the cactus' body. You can stick as many as you like in to the cactus. **They are very sharp and you should ask an adult to help you.**
- Now try to get your cactus to stand up. You can use the cocktail sticks or smaller pieces of sponge to prop them up.



- Get your stopwatch or timer ready
- Now measure out 20ml of water and pour in to the bottom of the plate.
- Start your timer to see how long it takes for the cactus to absorb the water. Make a note of the time.
- Repeat all of these steps with the other 2 sponges.
- On the next page, draw the shape of each cactus and note down how long it took for the cactus to soak up or absorb the water.



What did you find out?

Cactus	Draw its shape	How long did it take?
Cactus 1		
Cactus 2		
Cactus 3		

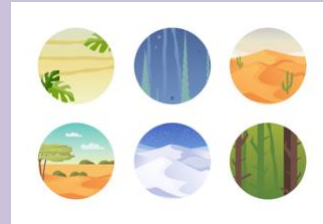
Which cactus absorbed the water most quickly?

The science behind it all



We know that a **habitat** is a place where something lives and grows. This could be a plant or an animal or even humans.

Habitats are very different. Some are large and some are small, some are warm and some are cold. Some are wet and some dry.



Very often the weather or climate forces living things to change to help them survive.



Some animals develop thick fur like the polar bear if their habitat is very cold. They may develop very long eyelashes like the camel to keep the sand out of their eyes.

In any habitat living things must be able to grow, feed and protect themselves. If their habitat does not then animals will find somewhere else to live.

In the same way animals adapt to their habitat so do plants. Banana trees need lots of sunshine whereas pine trees (Christmas trees) grow in much colder climates.



Cacti, as we found out in our experiment, take up water whenever it is available. To do this, their roots spread for a long way to find enough water and they store it in their thick stems for when there isn't any. Plants like animals need to protect themselves. Cacti are covered in small spikes so that animals are stopped from taking a bite!



Your Challenge!

Choose a plant or animal whose home is in a desert and find out how it survives in its hot and dry habitat then answer the questions below.



My living things is a _____

Does it have special parts or features to survive in the heat? _____

What does it do to get enough water? _____

How does it conserve or keep enough energy? _____

Draw a picture of the plant or animal you have chosen in the space below.

We hope you enjoyed this science lesson!