HOMEWORK BOOKLET

Year 11 Term 2

Hot Deserts

HOMEWORK 1

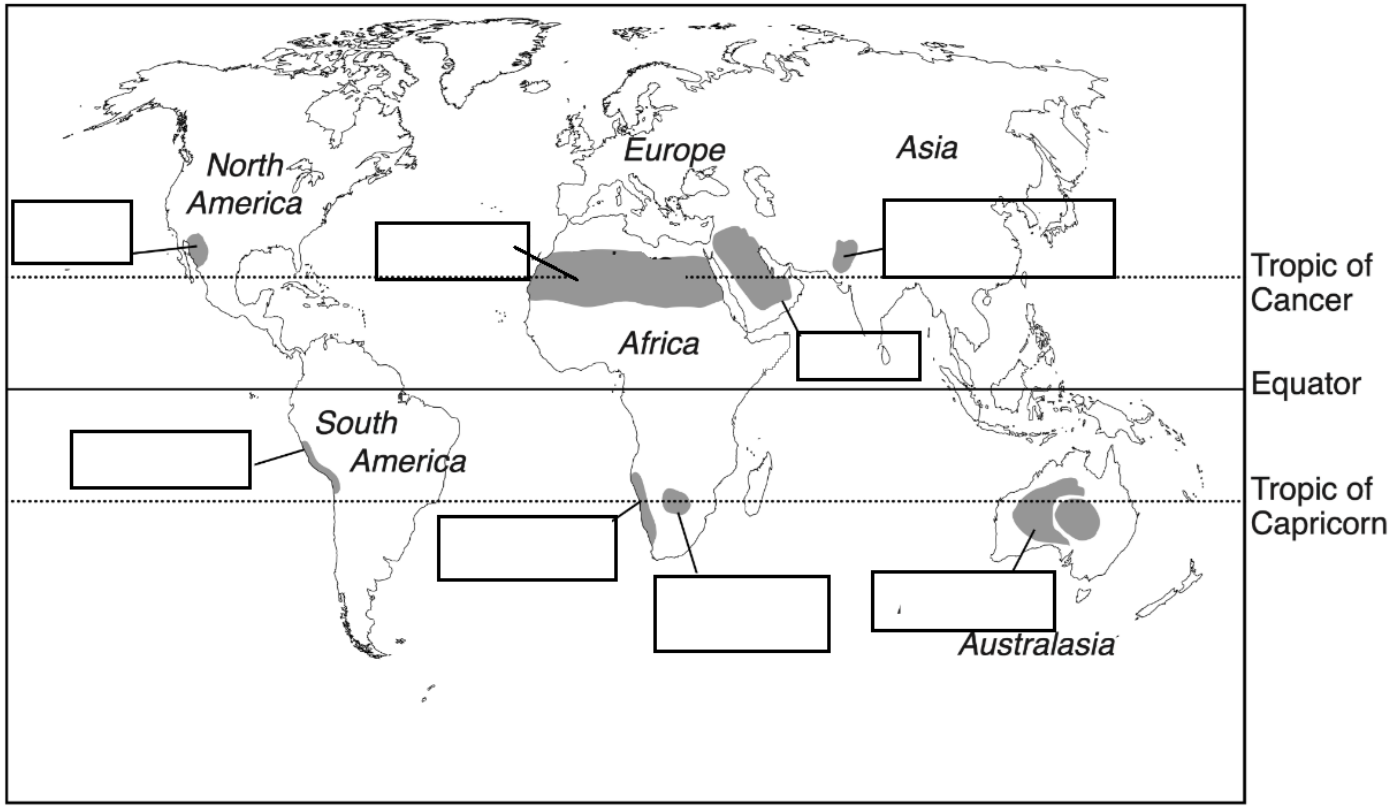
INTRODUCTION

Deserts can be classified according to how they are formed. Thus we can talk about 5 types of deserts around the world:

1. Subtropical desert
2. Interior deserts
3. Coastal deserts
4. Rain shadow deserts
5. Polar deserts

In this week's homework assignment you are required to examine the location of some of these deserts as well as how some of these deserts were formed ,

Write in the correct deserts in the boxes below

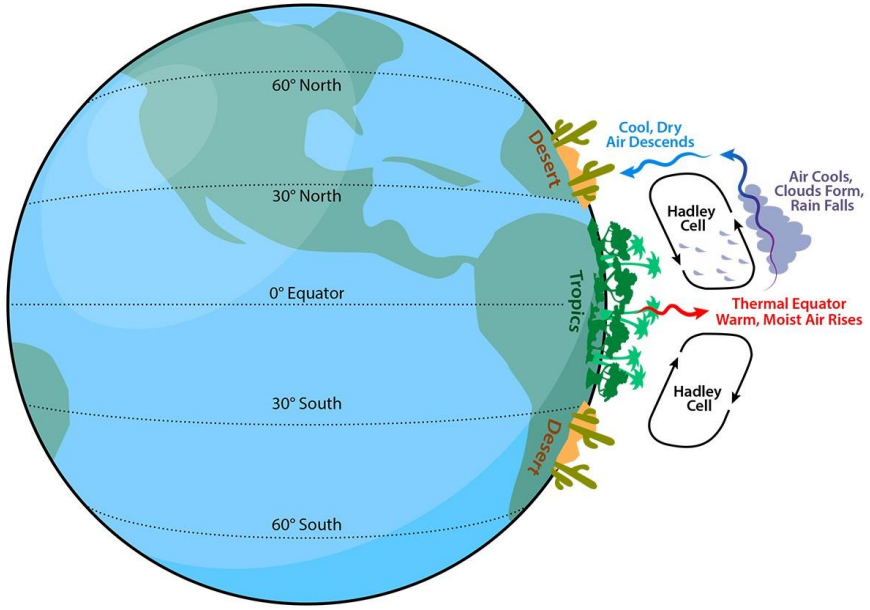


- Saharah
- Thar
- Atacama
- Kalahari
- Arabian
- Australian
- Mojave
- Namib

Homework 1

Air rises at the Equator because it is hot. As this air climbs higher in the sky, it cools. Cool air can hold less water than warm air. This means that as the air cools, clouds form that release most of the water they hold. So the Equator is NOT only hot but it is also humid and experiences a lot of rainfall.

The warm rising air from the equator, also pushes the cooler air at the top away. The cool air moves north and south of the Equator.



The cool air which moves away from the Equator in the upper atmosphere, will sink back to the ground at around 30 degrees latitude.

When the cool air begins to fall back toward the ground, it starts to warm up again. This warm, dry air can hold a lot of water, so the air starts to suck up what little water is around it. This makes it hard for clouds to form.

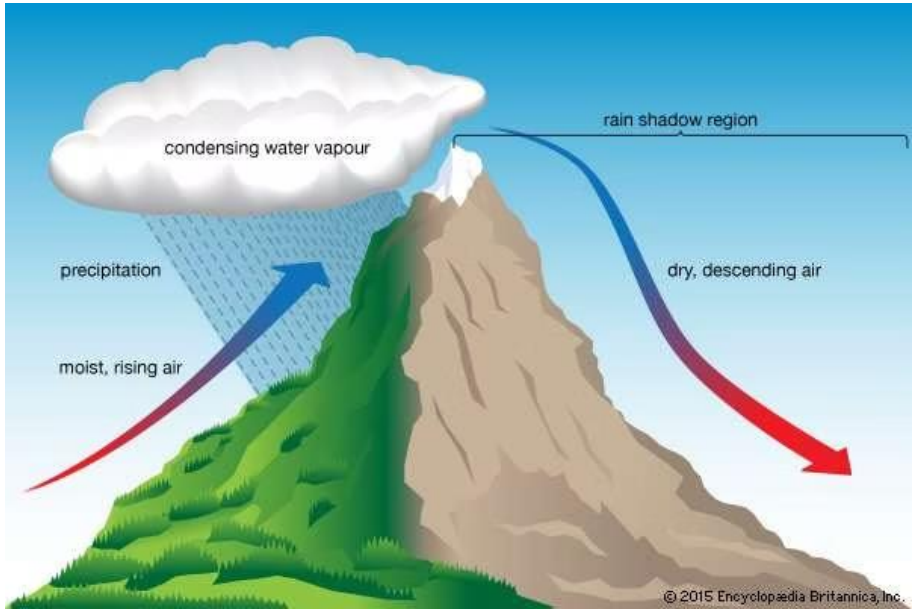
At 30 to 50 degrees north and south of the equator, this falling air makes dry air drier. It also turns the land below it into a desert.

Homework 1

1. Explain why areas at or close to 30 degrees often develop into desert

Homework 1

One way a desert can be formed is through a process called ***orographic lift.***



Use these terms: *Deserts, Windward, sink, Condenses, Warmer, Mountain, rise , Clouds, Rainfall, Leeward,*

Examine the diagram below and complete the passage with the correct terms.

The diagram shows wind blowing across a 1._____. Because the air cannot pass through, it is forced to 2._____. As this happens the air cools and 3._____ forming clouds. As the clouds get heavier, it starts to produce 4._____. The side of the mountain where winds blow is known as the 5._____ side .

The opposite side of the mountain is called the 6._____ side and is the side where air begins to 7._____. As this happens the air will get 8. _____ making it difficult for 9. _____ to form. Thus, this side of the mountain is a rainshadow and is one place where 10._____ develop.

Homework 1

HOMEWORK 2

INTRODUCTION

Animal Adaptation

Plants and animals in hot deserts develop unique adaptations in order to cope with the harsh conditions there.

In this week's homework assignment you are required to examine the special characteristics of plants and animals in the hot desert.

Scan the QR code to learn about animal adaptations before beginning your assignment.

Explain how any of these plants adapt to desert conditions

Creosote bushes

Desert sage plant

Homework 2

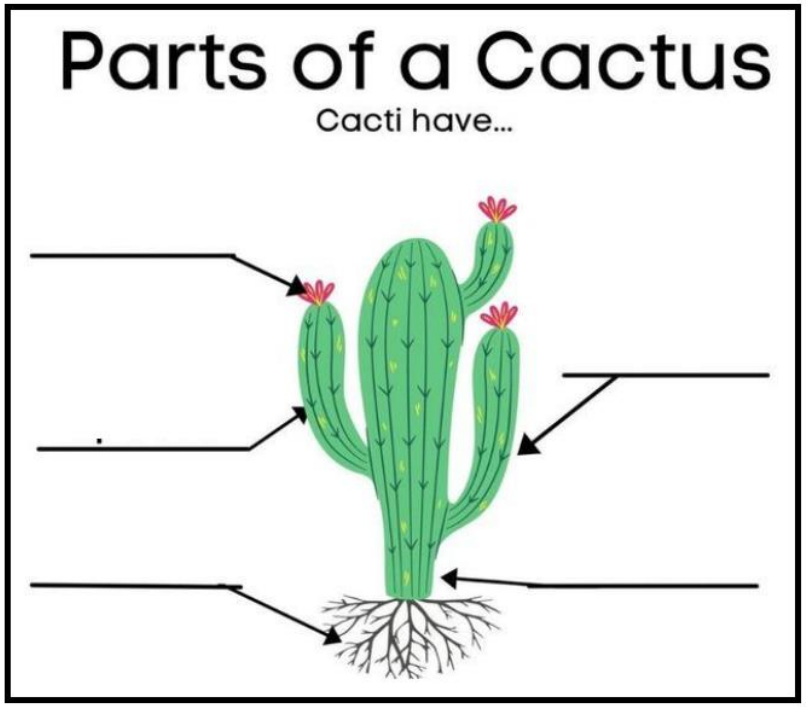
Cacti are a type of plant that are specially adapted to the dry, hot climate of the desert,

Cacti have specialized roots that are able to absorb water quickly. When it rains, cacti absorb water through their roots and store it in their stems. This water is used by the plant during dry periods. The stems of the Cactus can actually photosynthesize.

The spines of a cactus are highly modified leaves. Spines break up air flow, which can help reduce evaporation. The trapped air around the cactus can also create a buffer zone with slightly more moist air.In foggy areas, cactus spines can also help collect dew, which will drop onto the dirt near the cactus and be absorbed by the roots.

Cacti have a narrow base and a wide top. This shape allows the plant to minimize its surface area so that less water is lost through evaporation.

Label the parts of the Cactus plant below



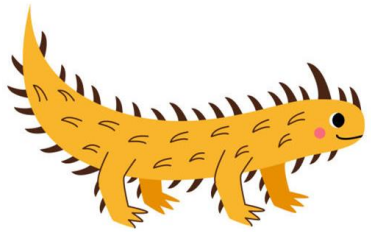
Flower, root, stem, spine, arms

Homework 2

How do these animals adapt to desert conditions

Fennec

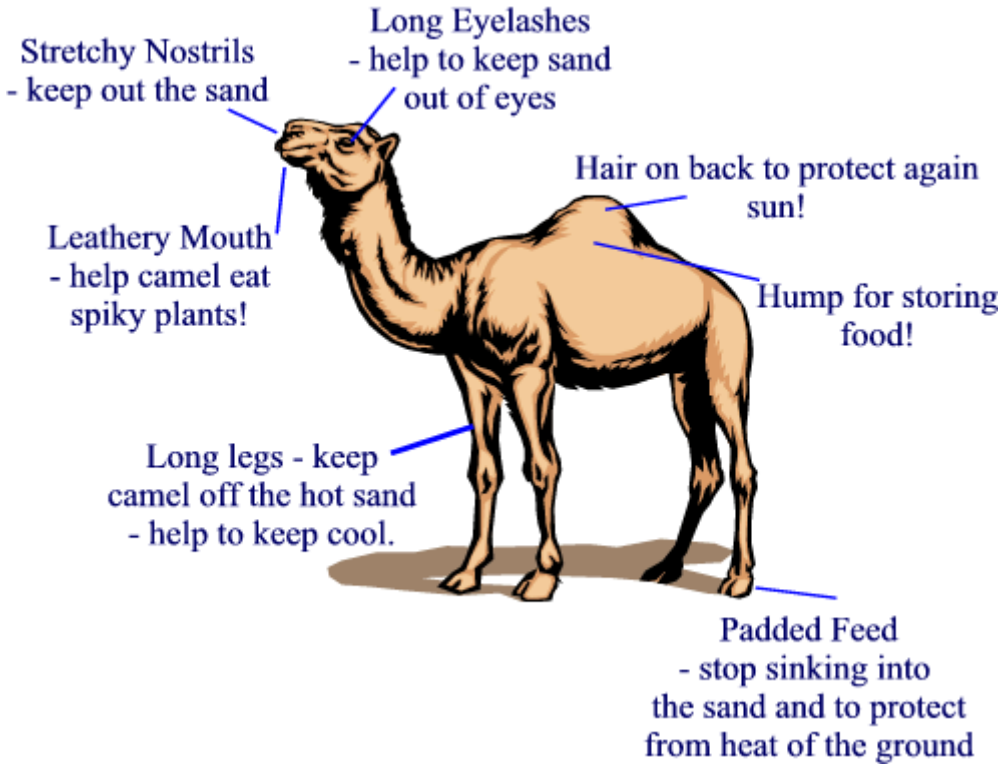
Squirrel



Spiny Devil

Homework 2

Examine the diagram and answer the questions



1. How are Camels able to eat spiky food? _____

   _____
2. How do camels keep cool from the hot sand? _____

   _____
3. What is the importance of the camel's hump _____

   _____

   _____
4. What is the importance of the camels long eyelashes?

   _____

   _____

   _____

Homework 2

HOMEWORK 3

Mojave desert

Opportunities of
western deserts

INTRODUCTION

In this week's homework assignment you are required to do a **case study** on the Western Deserts of the USA.

The Western Desert in the USA is made up of three different hot deserts - the Mojave Desert, part of the Sonoran Desert and part of the Chihuahuan Desert

Scan the QR codes on the previous page to learn more about these deserts .

Homework 3

List 3 facts about the Mojave Desert

Describe the main opportunities of the USA Western Deserts

Homework 3