



The Sharqiya Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning



Shifting Sands



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Objectives:

To know a range of desert-based vocabulary

To understand the processes involved in sand dune formation

To be able to explore the Sharqiya Sands through the use of creative language



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Look at the following mixed up definitions of some key desert words. Pair up the definitions with the words you already know.



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

Plants that have adapted to be able to withstand drought

Arid

The ways in which dunes are shaped by the wind

Desertification

A large area of sand dunes

Xerophytes

The degradation of the land in arid areas such that the desert increases in size

Erg

A climate which experiences less than 250mm of precipitation a year

Aeolian processes

A large desert feature caused by deposition of sand particles



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Now use a tablet, laptop or PC to research the definitions of the remaining words.

You have three minutes.



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

Plants that have adapted to be able to withstand drought

Arid

The ways in which dunes are shaped by the wind

Desertification

A large area of sand dunes

Xerophytes

The degradation of the land in arid areas such that the desert increases in size

Erg

A climate which experiences less than 250mm of precipitation a year

Aeolian processes

A large desert feature caused by deposition of sand particles



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Pair up any definitions you have researched.

Now use a tablet, laptop or PC to research the definitions of the remaining words.

You have two minutes.



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

Plants that have adapted to be able to withstand drought

Arid

The ways in which dunes are shaped by the wind

Desertification

A large area of sand dunes

Xerophytes

The degradation of the land in arid areas such that the desert increases in size

Erg

A climate which experiences less than 250mm of precipitation a year

Aeolian processes

A large desert feature caused by deposition of sand particles



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Pair up any definitions you have researched.

Now use a tablet, laptop or PC to research the definitions of the remaining words.

You have one minute.

What are the correct definitions?



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

Arid

Desertification

Xerophytes

Erg

Aeolian processes



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

A large desert feature caused by deposition of sand particles

Arid

Desertification

Xerophytes

Erg

Aeolian processes



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

A large desert feature caused by deposition of sand particles

Arid

A climate which experiences less than 250mm of precipitation a year

Desertification

Xerophytes

Erg

Aeolian processes



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

A large desert feature caused by deposition of sand particles

Arid

A climate which experiences less than 250mm of precipitation a year

Desertification

The degradation of the land in arid areas such that the desert increases in size

Xerophytes

Erg

Aeolian processes



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

A large desert feature caused by deposition of sand particles

Arid

A climate which experiences less than 250mm of precipitation a year

Desertification

The degradation of the land in arid areas such that the desert increases in size

Xerophytes

Plants that have adapted to be able to withstand drought

Erg

Aeolian processes



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

A large desert feature caused by deposition of sand particles

Arid

A climate which experiences less than 250mm of precipitation a year

Desertification

The degradation of the land in arid areas such that the desert increases in size

Xerophytes

Plants that have adapted to be able to withstand drought

Erg

A large area of sand dunes

Aeolian processes



Desert Key Words

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Dune

A large desert feature caused by deposition of sand particles

Arid

A climate which experiences less than 250mm of precipitation a year

Desertification

The degradation of the land in arid areas such that the desert increases in size

Xerophytes

Plants that have adapted to be able to withstand drought

Erg

A large area of sand dunes

Aeolian processes

The ways in which dunes are shaped by the wind



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Look carefully at the sand timer as grains of sand move from one side to the other.

What is the shape of the growing pile?

What is the shape of the receding pile?

Tilt or wobble the timer from side to side. What effect does this have on the shapes of the piles?



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

What key variables affect the size, shape and position of sand dunes?



Forming a sand dune

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Type of sand (grain size and density)

Quantity of sand able to be transported

Vegetation type (and its position)

Aspect

Level of human disturbance

Strength of wind

Underlying relief

Outlying rocks (and their position)

Prevailing wind direction



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Look at a satellite image of the Sharqiya Sands.

What type of dune is dominant?

What may have caused this shape to be seen in this region?



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

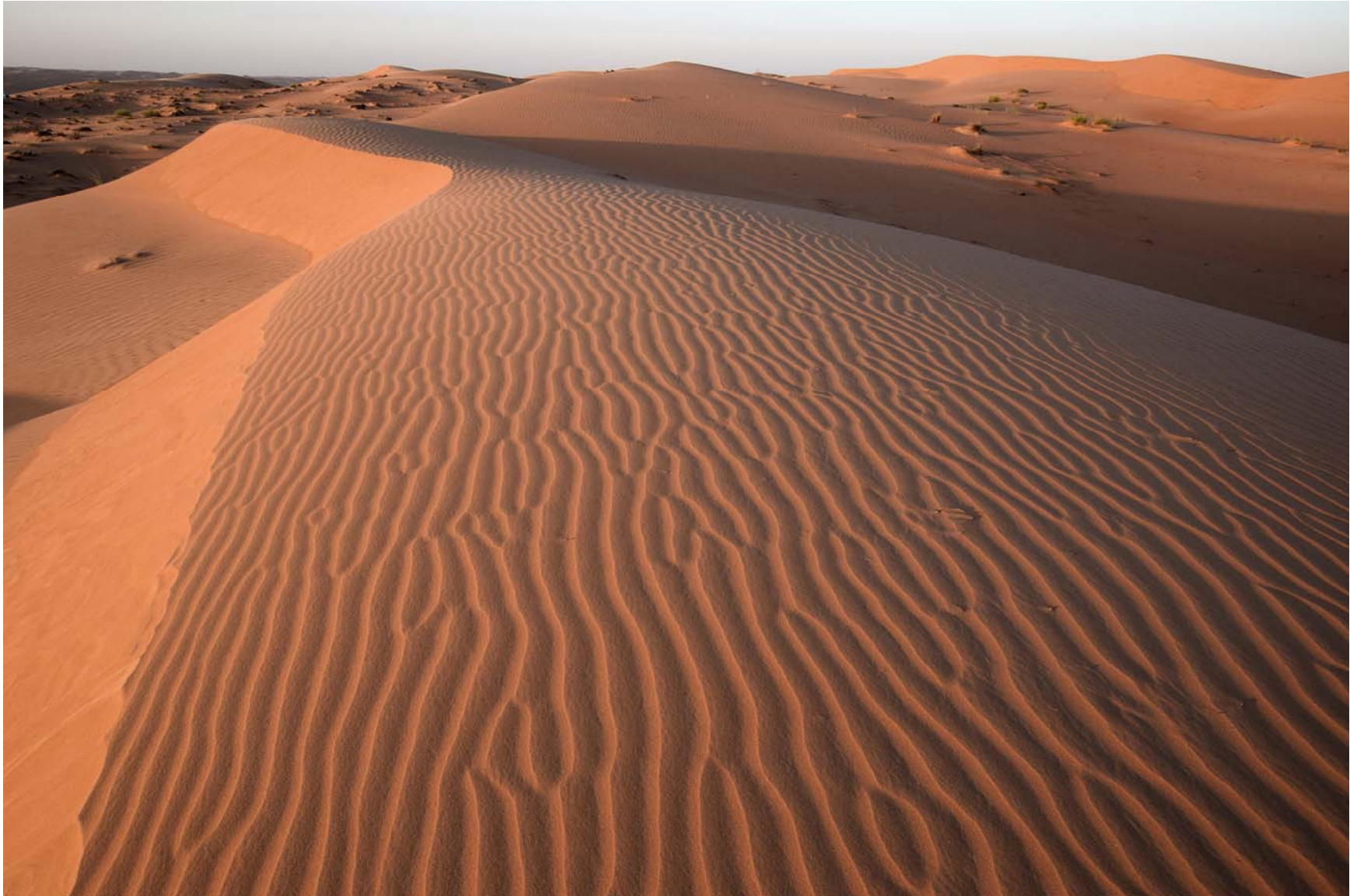
Look at the following images of the Sharqiya Sands.

Write a poem with the title ‘Shifting Sands’ – you should aim to use at least three of the key words you learnt at the start of the lesson.

Sharqiya Sands photojam

**Royal
Geographical
Society**
with IBG

Advancing geography
and geographical learning



Source: Teseum (CC-BY-2.0)

Sharqiya Sands photojam

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning



Source: Arian Zwegers (CC-BY-2.0)

Sharqiya Sands photojam

**Royal
Geographical
Society**
with IBG

Advancing geography
and geographical learning



Source: Andries3 (CC-BY-2.0)

Sharqiya Sands photojam

**Royal
Geographical
Society**
with IBG

Advancing geography
and geographical learning



Sharqiya Sands photojam

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning



Source: Prasad Pillai (CC-BY-2.0)



Shifting Sands

**Royal
Geographical
Society**

with IBG

Advancing geography
and geographical learning

Homework:

Think about how the sand dunes of Sharqiya may change in the future, assuming there is no human intervention into the physical processes happening there?

What will they look like and will they have moved anywhere else?

Will their future position and size be sustainable or is human intervention necessary to allow continued habitation in the region?