THE LIVING WORLD
Hot Deserts

read

quiz

The Big Picture

ecosystems — *rainforests*

The Living World

cold environments — or — *hot deserts**

Key Terms

Appropriate technology – Technology suited to the needs, skills, knowledge and wealth of local people.

Biodiversity – The variety of life in the world or a particular habitat.

Desertification – The process by which land becomes drier and degraded.

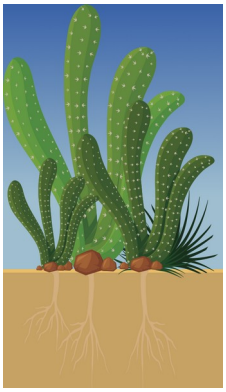
Hot desert – areas with high average temperatures and very low precipitation.

Mineral extraction – The removal of solid mineral resources from the earth.

Over cultivation – Exhausting the soil by over-cropping the land.

Over grazing – Grazing too many livestock for too long on the land, so it is unable to recover its vegetation.

Adaptations



Reduced number of stomata to reduce water loss by transpiration.

Needles instead of leaves, reducing loss by evapotranspiration.

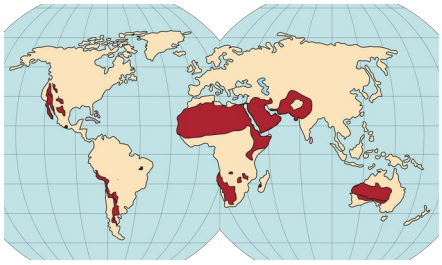
Large capacity to store water in fleshy stems.

Large, network of roots absorb water rapidly after rainfall.

Camels

- humps store fat which a camel can break down into water and energy.
- broad, flat, leathery feet to spread their weight and provide protection from hot sand.

Location



Around the Tropics of Cancer and Capricorn

Between 15° and 30° north or south of the equator

Characteristics

Climate – Arid (rainfall <250mm/year, summer temperatures >40°C and high pressure.

Water – Short supply, downpours when it rains, high evaporation rates.

Soil – Sandy or stony and dry. Very little organic matter and generally not very fertile.

Biotic – Low level of biodiversity. Many plants and animals have adapted to conditions.

People – Sparsely vegetated desert fringes = livestock farming.

Interdependence

Interdependence includes:

- complex food webs
- sustainable coexistence of people, plants and animals in fragile semi-arid environments
- adaptations of plants and animals to soil and climate characteristics
- potential damage to the ecosystem inflicted by overgrazing etc.

Biodiversity

Rich in small pockets near water.

biodiversity

Threatened by humans.

Low rainfall = low biodiversity.

Generally low.

Fragile to changes.