DATE: **28 SEP 2020**

SUBJECT : **SCIENCE**

CHAPTER-8:

WEATHER, CLIMATE AND ANIMAL ADAPTATION

TOPIC-4:

ADAPTATION OF ANIMALS TO HOT & DRY CLIMATE

Adaptation of Animals to hot & dry climate:

Adaptation:

certain specific features or habitats that help an organism to survive in an environment are known as adaptation.

Hot and dry climatic regions:

Regions near the equator have sunlight most of the time and hence such regions are hot.

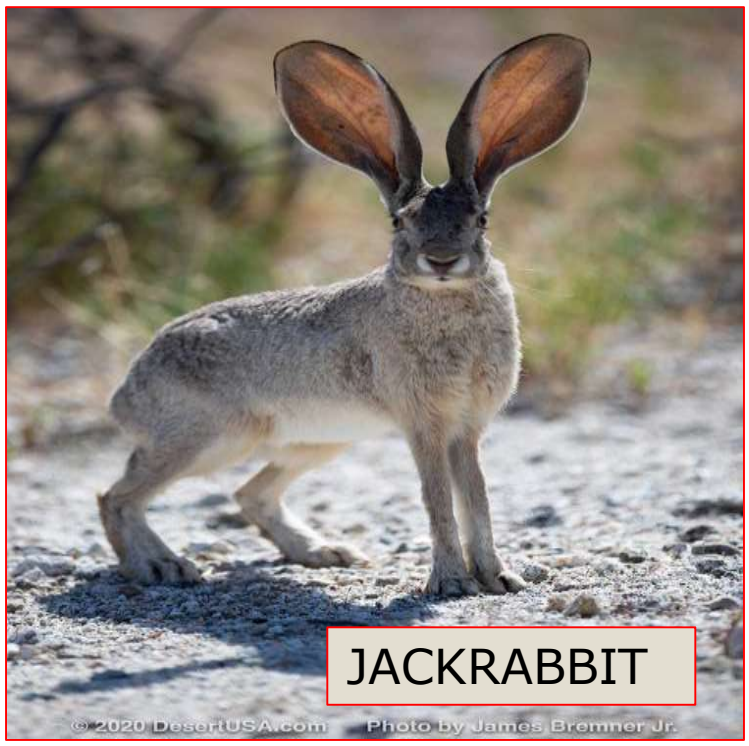
Very high daytime temperatures(40 degree Celsius-Very hot), with very little precipitation (lowest rainfall) and a short and mild winter season characterize this **climate**. **Dry climate** is spread along the areas from 20 - 35º North and South of the equator and the continental regions of the mid-latitudes.

Inhabitants in polar region:

Nocturnal animals(snakes, lizards,rodents,desert foxes), kangaroo rats, camels, jackrabbits, fennec foxes, are found in these regions.

SOME ANIMALS IN HOT AND DRY CLIMATIC REGIONS

CAMEL KANGAROO RAT JACKRABBIT FENNEC FOX LIZARD SNAKE



CAMEL

Adaptive features of camel:

- Camel can go for days or even weeks without food and water
- Hump of camel stores fat which acts as a food reserve
- They drink very large amount of water(over 100 litres) when it is available and restore their body's normal water content
- They get moisture from the food that they eat.
- They loss very little of water through urination.
- Camel can withstand change in body temperature up to 42 degree Celsius.
- They have very less sweating there by prevents water loss.
- They have long eyelashes that prevent desert sand from entering their eyes when the wind blows.
- They have long legs that keep the body of camel away from the hot sandy ground.
- Camel nose has special structures that trap the water vapour in its exhaled breath. This water vapour condenses in the nasal passage and the water is absorbed.

KANGAROO RATS

ADAPTIVE FEATURES:

- They get water from the food they eat
- They can live without drinking water for a very long time.
- They get moistures from the seeds and grasses that they eat.

JACKRABBITS

Adaptive Features:

- The have large ears that help them to radiate heat to the surrounding air and keep them cool.
- Their ears are supplied with a rich network of blood vessels. When air blows over their ears, the blood in the blood vessels cools down. This helps to reduce the body temperature of the animals.

FENNEC FOX OR DESERT FOX

Adaptive Features:

- The have large ears that help them to radiate heat to the surrounding air and keep them cool.
- Their ears are supplied with a rich network of blood vessels. When air blows over their ears, the blood in the blood vessels cools down. This helps to reduce the body temperature of the animals.

NOCTURNAL ANIMALS

LIZARD

SNAKE

Adaptive features:

1. They live inside caves or burrows during day time and comes out at night in search of food.
2. Protect themselves from severe heat of the day by being active at night

Note: such animals are called Nocturnal animals.

QUESTIONS: HOME ASSIGNMENT

1. Write briefly about hot and dry climate?
2. Where are the regions having hot and dry climate located?
3. Name any five inhabitants/animals found in hot and dry climatic region.
4. How is a camel adapted to hot and dry conditions?
5. Write the adaptive features of Kangaroo rat.
6. Write the adaptive features of Jackrabbit.
7. What are the adaptive features of nocturnal animals like Lizard, snakes?
8. How do large ears help an animal living in a hot place?
9. Some desert animals make burrows and hide in them during the day. Give reason.