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Life in the Deserts (Sahara in Africa and Ladakh in India)

Lesson Plan

Contents

- ▶ An overview of the deserts of the world
- ▶ To understand the hot and cold deserts

Objectives

- ▶ To understand the environment of deserts—both hot and cold
- ▶ To learn how people live in desert areas
- ▶ To know about the manner in which the environment and the people interact in hot deserts and in cold ones
- ▶ To appreciate the differences between the way people cope with life in a hot desert and in a cold desert

Teacher's Aids

- ▶ Globe
- ▶ Pictures, charts, atlas and wall maps
- ▶ Blackboard
- ▶ Internet

Tips for Teacher

- ▶ Explain the environment of deserts in hot and cold areas and the lifestyles of people living there.
- ▶ Find out if any of the students come from desert areas and ask them about life there.
- ▶ Students should be encouraged to know places, locations and their placement on the maps.

Background and Reading

- ▶ Read the lesson aloud and explain, sharing the aids, etc., pausing to examine and explain the data in the boxes.
- ▶ Particularly focus on the natural environment of hot and cold deserts and the manner in which people adapt themselves to live in it.

Deserts

- ▶ Those regions where average annual rainfall is less than 25 cm—very high or very low temperatures—hot deserts and cold deserts—dry and sparsely populated.
- ▶ Hot deserts—mostly in tropical belt.
- ▶ Cold deserts—mostly in temperate belt or high altitude.
- ▶ Important ones: Sahara, Kalahari, Arabian, Thar, Ladakh, Patagonia, etc.

Life in the Sahara Desert

- ▶ Sahara—the largest desert in the world [8.5 million square kilometres]—covers a very large part of North Africa—three times the area of India—Its name 'El Khela' means emptiness.

Location:

- ▶ Atlantic Ocean on west, Red Sea in east, Mediterranean Sea to north, Atlas Mountains to northwest, Savanna grasslands to south—spreads over Algeria, Chad, Egypt, Libya, Mali, Mauritania, Morocco, Niger, Sudan, Tunisia and Western Sahara.

Features:

- ▶ Not entirely sandy—vast stretches of sand and vast areas of pebbles and gravel—some elevated plateaus with rocky surface up to 2500 m—sandy part with shifting sands—a few mountains: Tibesti and Ahaggar ranges—highest point: Emi Koussi [3414 m] in Chad; lowest point in the Qattara Depression about 135 m below sea level.
- ▶ River Nile to the east—along southern border: Niger river—southern part: Lake Chad, the only freshwater lake in the Sahara—oases which provide permanent sources of water.

Climate:

- ▶ Hot and dry—highest temperature in the world [58° C in 1922] recorded at Al Azizia [Libya]—temperature can reach freezing point on winter nights—sky clear and cloudless—no rain for 2-3 years—some rain in northern parts during winter and southern parts in summer.

Natural Vegetation:

- ▶ Climate does not favour growth of trees—plants with long roots, thick barks and small leathery leaves—reduce loss of water through transpiration—scattered covering of thorny bushes, shrubs and trees like cactus, acacia, and baobab—also date palms at oases.

Wildlife:

- ▶ Camels, hyena, jackals, foxes, many types of snakes and lizards—others: Hedgehogs, mongoose, desert eagles, etc—camel most important: Called ship of the desert—used even today for transporting goods in the sandy desert.

People in the Sahara Desert

- ▶ Climate unsuitable for human habitation–yet groups of tribals live here and pursue different activities–Bedouins and Tuaregs–adapted to the physical environment–basically nomadic tribes–main occupation: Rearing livestock–goats, sheep, camels, horses, etc.–get milk, leather [make belts, slippers, water bottles, etc.], and hair of animals [mats, carpets, clothes, blankets, etc.]–wear heavy robes as protection against sand and storms and heat.
- ▶ Settled life in some parts, especially in the Nile Valley and near oases–water available–used for irrigation–farmers raise cereals and cash crops: Rice, wheat, beans, cotton, sugar cane, etc.–Egyptian cotton best in the world–Egypt farmers called fellahin–date palm valuable.
- ▶ Rich in minerals–especially mineral oil, iron ore, phosphorus, manganese and uranium–mineral oil: Algeria, Libya and Egypt.
- ▶ Industries–manufacturing units for producing leather coats, belts, caps, carpets, mats, water bottles, bags, purses, blankets–industrial development leading to urbanisation–people coming to cities for work.
- ▶ New economic system changing the culture of Sahara–trucks and motor vehicles replacing camels–highways replacing tracks–tribals, especially Tuaregs, coming to cities–working in oil and natural gas factories–and as tourist guides. Main cities: Cairo, Giza, Alexandria, Port Said, Tripoli, Timbuktu, etc.

Life in Ladakh

Location:

- ▶ Union Territory east of Jammu and Kashmir–Karakoram range in north–Zaskar range in the south–cold desert to the north of the Himalayan Mountain ranges–barren and remote and almost inaccessible.

Features:

- ▶ Big and small rivers flowing through it–Indus and its tributary Shyok are the most important–cut deep valleys called gorges–many glaciers like Gangotri–many perennial rivers from the glaciers–height of mountains 3000 m in Kargil area to about 8000 m in the Karakorams–K2 [Mt Godwin Austin–8611 m] is the highest peak in India and the second highest in the world, after Mt Everest.
- ▶ High mountain passes –Ladakh means ‘Land of the passes’–also called Khapa-Chan meaning land of snow–Zoji La [4000m] important pass.

Climate:

- ▶ Very cold and dry - air thin and sun felt intensely–summer: Sun shines brightly making it warm, but nights are cold–winter temperature goes down to -40° C–freezing cold.
- ▶ North of Himalayas so lies in rain-shadow of the mountains–southwest monsoon winds provide little rain here–average annual rainfall as low as 10 cm–very cold winds and burning hot sunlight at the same time–sunstroke and frost bite can be simultaneous.

Natural Vegetation:

- ▶ Sparse—a few stunted trees such as willows and poplars in valleys - most areas: Patches of grasses and shrubs for grazing animals—some fruit trees like apples, apricots, walnuts, etc., during summer.

Wildlife:

- ▶ Tibetan antelopes, wild goats, wild sheep, yak, a special variety of dogs, Tibetan wild ass called kiang—birds: Robin, redstarts, Tibetan snowcock, raven, hoopoe, carrion crow, chukar, golden eagle, etc.—some are migratory birds.

People in Ladakh

- ▶ Main occupations—agriculture, animal rearing and tourism - Farming in valleys along lower slopes—main crops: Barley, potatoes, peas, beans, vegetables and fruits like apples, apricots, walnut, grapes, etc.—no agriculture during winter—weaving and carpet making during winter.
- ▶ Animals reared—yaks, goats, sheep, antelopes, etc.—provide milk, meat and hide—woollen clothes made from hair of sheep and goats—fine wool: Shahtoosh from hair of Tibetan antelope; Pashmina from sheep.
- ▶ Tourism—from India and abroad—visit Buddhist gompas—Sindhu festival every June—main attraction is trekking to meadows and glaciers.
- ▶ People mostly Buddhists and Muslims—Buddhist monasteries with gompas: Hemis, Thiksey, Shey, Lamayuru, etc.—women very hard-working at home, in fields and small businesses.
- ▶ Capital: Leh connected by road and air—to Srinagar Valley through Zoji La—Manali-Leh Highway crosses Rohtang La, Baralacha La, Lungalacha La—highway open only from June to September—Dras is one of the coldest places on Earth.
- ▶ Life changing due to government's efforts and increasing contact with people from other parts of the world—people adjust with nature: Less water, scarce resources, nothing wasted or discarded.

Assessment Corner

Oral Assignment

- A. Ask for answers at random from the students. Confirm the right answers. Let them write down the correct answers if they like in their books.

Written Assignment

- B-E. The teacher has two options—(i) Either do these exercises orally first and then ask the students to write them down. OR (ii) Ask the students to write the answers on their own. Then the teacher can announce the correct answers and students can ask their partners to cross-check them.

In either case, the answers can be written as homework and the teacher can check them in the class.

Think Tank

- F. **HOTS questions:** Discuss the questions in the class and let the students write the answers to F and G as homework. Teacher should assess individual work.