

Europe: Climate, Natural Vegetation, Wildlife; Forest, Minerals & Power Resources

THINK AND ANSWER

Why is London at 51°N not so cold in winter as New York at 41°N ?

Answer:

Ans. In the winter, London is warmed by prevailing winds from the south west, warmed by warm water from the Caribbean by the gulf stream, whilst New York has a more continental winter.

Discuss

Discuss the importance of ocean currents and winds for the climate of Europe.

Answer:

Ocean currents : The warm North Atlantic Drift helps to keep parts of western Europe warm. The ports here are open for trade even in winter.

Winds : The South-Westerlies that blow across the North Atlantic Ocean towards Europe are warmed as they pass over the North Atlantic Drift. These warm winds from sea to land pick up moisture and cause rainfall, which decreases eastwards. They also help to raise the winter temperatures of coastal and central European countries.

VALUES AND LIFE SKILLS

Several factors affect the climate of a place. Similarly, several factors affect the personality and nature of human beings.

Can you name a few factors that affect the nature and personality of people ?

Do you think people can remain unaffected by their surroundings ?

Answer:

(a) The factors that affect the nature and personality of people are:

1. Environment
2. Heredity
3. Culture
4. Particular experiences

(b) No, people remain affected by their surroundings.

People change their personality and nature according to their surroundings.

EXERCISES

A. Write true or false. Correct the false statements.

1. Eastern Europe receives rainfall throughout the year.

Answer. False.

Western Europe receives rainfall throughout the year.

2. Softwood trees such as pine, fir, and spruce are found in the taiga belt.

Answer. True.

3. Mixed forests consist of grass, moss, softwood trees, hardwood trees, and thorny vegetation.

Answer. False.

4. Only mosses, lichens, and small colourful flowers grow in the steppes of Eurasia.

Answer. False.

Only mosses, lichens, and small colourful flowers grow **Tundra Vegetation**.

5. Wild cats and large fur-bearing animals are not found anywhere in Europe.

Answer. False.

Wild cats and large fur-bearing animals are found in **Tundra region**.

B. A list of names of wildlife and vegetation species has been provided. Write them in the appropriate columns given below.

pine, oak, lynx, lichen, myrtle, olive, squirrel, seal, moss, spruce, beech, laurel, penguin, short grass

| Climatic regions | Wildlife | Vegetation |
|---|-----------------|-------------------|
| Arctic and sub-Arctic | | |
| Maritime climate or west European climate | | |
| Central European climate or temperate interior | | |
| Eastern European or continental climate | | |
| Mediterranean climate | | |
| Desert climate | | |

Answer:

| Climatic regions | Wildlife | Vegetation |
|--|------------------------------------|----------------------------------|
| Arctic and sub-Arctic | Penguin Seal, squirrel, Lynx | Moss, Lichen, Beech spruce |
| Maritime climate or west European climate | | Oak, Beech, Pine |
| Central European climate or temperate interior | | Short grass |
| Eastern European or continental climate | | Short grass |
| Mediterranean climate | Squirrel | Olive, Myrtle and Laurel |

C. Choose the correct answer.

1. An ocean current that keeps the coasts of northern Europe frost-free in winter:

1. Labrador Current
2. Canary Current
3. **North Atlantic Drift**
4. North Pacific Drift

2. A major part of Europe has moderate climate because it is located in :

1. the torrid zone
2. **the temperate zone**
3. the frigid zone
4. none of these

3. Onshore winds that bring rainfall in winter to the countries around the Mediterranean Sea :

1. the North-Westerlies

2. **the South-Westerlies**
3. the North Polar Easterlies
4. the North-East Trade Winds

4. A region of extensive evergreen trees, with needle-like leaves and home to small fur-bearing animals :

1. tundra
2. Steppes
3. **Taiga**
4. Desert

5. A region well-known for olives, oleander, and orange trees:

1. western Europe
2. northern Europe
3. eastern Europe
4. **southern Europe**

D. Answer the following questions in brief.

Question 1.

How does the climate of Europe change from :

- (a) east to west
(b) north to south

Answer:

(a) east to west — Winters and summers are more severe in the east than in the west. The annual rainfall is highest in the west and decreases steadily eastwards.

(b) north to south — North European countries experience longer, colder winters and shorter, cooler summers than south European countries.

Question 2.

List the factors that affect the climate of Europe.

Answer:

Factors Affecting the Climate of Europe :

Latitude — Most of Europe lies within the temperate latitudes, which are neither too hot nor too cold. Only a small part of the continent lies north of the Arctic Circle in the frigid zone.

Nearness to Water Bodies — Except for eastern Europe, all other parts of Europe are close to the sea. There are oceans, seas, bays, gulfs, straits, and even lakes which have a moderating effect on the climate.

Relief Features — The east-west arrangement of most highlands, especially the Alps, allows the rain-bearing winds to enter places in the interior and cause rainfall there.

Ocean Currents — The warm North Atlantic Drift helps to keep parts of western Europe warm. The ports here are open for trade even in winter.

Winds — The South-Westerlies that blow across the North Atlantic Ocean towards Europe are warmed as they pass over the North Atlantic Drift. These warm winds from sea to land pick up moisture and cause rainfall, which decreases eastwards. They also help to raise the winter temperatures of coastal and central European countries.

Question 3.

How is the vegetation of the Mediaterranean region able to withstand the summer drought conditions ?

Answer:

Mediterranean Vegetaion: The vegetation which consists mainly of trees with thick spongy barks and leaves, and long roots as well as shrubs and bushes with small, waxy leaves and thorns. The long roots, small waxy leaves, and thick spongy bark help the trees survive in dry summers.

Question 4.

What changes have human beings brought about in the temperate grasslands of Europe ?

Answer:

As large parts of the forest of this region was cutted down and now used for the cultivation of wheat and other cereals. As land development drives animal away from populated areas and changes the condition of environment.

Question 5.

Name a few minerals found in large quantities in Europe.

Answer:

Europe has fairly large deposits of iron ore, coal, petroleum, natural gas, bauxite, zinc, copper, lead, nickel, and manganese.

E. Answer the following questions in one or two paragraphs.

Question 1.

Explain how relief features, winds, and ocean currents affect the climate of Europe.

Answer:

The following factors affect the climate of europe:

Latitude — Most of Europe lies within the temperate latitudes, which are neither too hot nor too cold. Only a small part of the continent lies north of the Arctic Circle in the frigid zone.

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Question 2.

What is the difference between maritime and continental climates ?

Answer:

Continental climate :

As the name suggests, this climate is experienced in the eastern parts of Finland, Poland, Russia, the Baltic states, the Czech Republic, and Slovakia. Great variations in summer and winter temperatures and low amount of summer rainfall are features of this type of climate. Thus, it is also called the continental climate.

Mediterranean Climate :

As the name indicate, this climate is mainly experienced in the regions bordering the Atlantic Ocean. Since these regions are near the sea, they have warm summers and cool winters, with rainfall through – out the year.

Question 3.

With the help of two examples from Europe, show how the vegetation of Europe is closely related to climate.

Answer:

Though a small continent, Europe has a great variation of climate. The main types of climates are Arctic and Sub-Arctic, west European or maritime, central European, east European, desert, and Mediterranean climates.

The main vegetation types of Europe include tundra vegetation, taiga or coniferous vegetation, mixed vegetation, temperate grasslands or the steppes, and Mediterranean vegetation.

Question 4.

What do the terms 'tundra', 'taiga', and 'steppes' refer to ? Explain each of the terms and state where each is found.

Answer:

Tundra : A vast, flat, treeless Arctic region of Europe, Asia and North America in which the sub soil is permanently frozen.

Taiga : Taiga is the largest terrestrial biome on earth: It extends in a broad band across Europe, North America and Asia to the Southern border of the arctic tundra.

Steppes : A large area of flat unforested grassland in South-East Europe or Siberia.

Question 5.

How has the wildlife of the tundra adapted to the climate?

Answer:

The wildlife of tundra specially reindeer has wonderfully adapted to the extreme cold. Its thick hair protects it from the cold. Its long, flat hoofs are suited for walking over snow and for digging in the snow to look for buried vegetation.

Question 6.

Why has the area under forest in Europe dropped from 80 per cent to 30 per cent in recent years ?

Answer:

The area under forest in Europe dropped from 80 per cent to 30 per cent in recent years because of cutting down of trees to make and available for cultivation and industries as the continent has high population density. Today there are only three main forested areas—the Scandinavian mountain region, the Alpine mountain region, and the taiga region of Russia. A few mixed forests and Mediterranean forests are also found in southern Europe.

F. Map work.

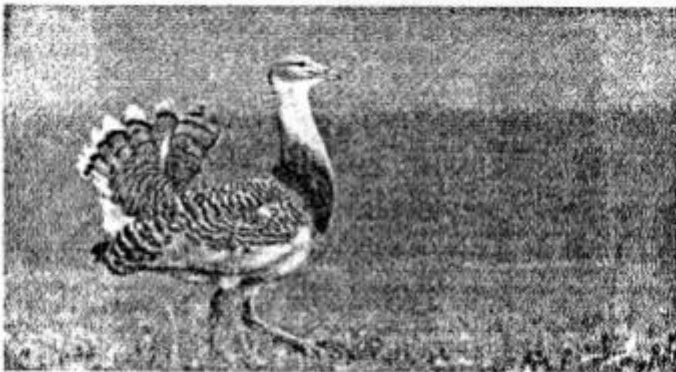
On the blank outline map of Europe do as directed.

1. Use different colours to show the various climatic regions of Europe.
2. Mark the areas that have (i) Steppes and (ii) Mediterranean forests.

Answer:

1. See map on page 104 (Europe: Climate) of your textbook.
2. See page 106 (Europe : Vegetation) of your textbook.

G Picture study.



This is a photograph of a Great Bustard.

Question 1.

In which vegetation belt is this bird mostly found?

Answer:

Temperate Grasslands

Question 2.

Name two other animals from this vegetation belt.

Answer:

Roe deer and the saiga antelope.

Let's Do Something

Collect pictures and information on the natural vegetation and wildlife of Europe from encyclopaedias and the Internet, and make a scrapbook.

Answer:

Do it yourself.