

Western Europe

Lesson 1: Physical Geography of Western Europe

ESSENTIAL QUESTION

How does geography influence the way people live?

Terms to Know

dike a large barrier built to keep out water

polder the land reclaimed from building dikes and then draining the water from the land

estuary an area where river currents and the ocean tide meet

Westerlies strong winds that blow from west to east

deciduous trees that shed their leaves in the autumn

coniferous evergreen trees that produce cones to hold seeds and that have needles instead of leaves

Where in the World: Western Europe



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Lesson 1: Physical Geography of Western Europe, *continued*

Landforms and Waterways

Guiding Question *How do the physical features of Western Europe make the region unique?*

Western Europe includes the nations of Ireland, the United Kingdom, France, Germany, the Netherlands, Belgium, Luxembourg, Austria, and Switzerland. It also includes the tiny countries of Monaco and Liechtenstein.

The landscape of the region consists of plains with mountains in some places. Much of Western Europe lies in the Northern European Plain. Massive sheets of ice shaped the plain during the last ice age, which ended about 11,000 years ago. Melting glaciers left behind fertile soil, but also thick layers of sand and gravel. These deposits have eroded into sand dunes along some of the North Sea coastline. The glaciers also left behind areas of poorly drained wetlands along the coasts of the British Isles.

Two mountain ranges separate Western Europe from Southern Europe. They divide the cooler climates of the north from the warm, dry climate of the Mediterranean region to the south.

Range	Pyrenees	Alps
Location	Between France and Spain	France, Switzerland, Austria, Germany
Length	270 mi (435 km)	750 mi (1,207 km)
Tallest Peak	Pico de Aneto 11,169 ft (3,404 m)	Mont Blanc 15,771 ft (4,807 m)

The Pyrenees and the Alps were created by the folding of rocks as a result of plate tectonics. They were also shaped by glaciers. These mountains are younger than other mountains in Europe.

Western Europe has long, irregular coastlines on the Atlantic Ocean and the North, Baltic, and Mediterranean seas. The North Sea is a part of the Atlantic Ocean that separates the island of Britain from the rest of Europe. It is a rich fishing ground for the Netherlands and the United Kingdom. It has long been important for trade. It is also the location of large oil and gas reserves.

The North Sea has helped and hindered the Dutch, the people of the Netherlands. Because 25 percent of the Netherlands is below sea level, the Dutch have built **dikes**, walls to hold back the water. They call the land they reclaim from the sea **polders**. This land is used for farming and settlement. Stormy seas have broken dikes and caused flooding in recent times.

Marking the Text

1. Read the text on the left. Highlight the names of the nations that make up Western Europe.

Describing

2. How have glaciers shaped the landscape of Western Europe?

Comparing

3. Compare Western Europe's two major mountain ranges.

Listing

4. Which bodies of water lie off the coast of Western Europe?

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Marking the Text

5. Read the text on the right. Underline the sentence that tells how Britain is connected to mainland Europe.



Reading Progress Check

6. How did the rivers in Western Europe affect its economic development?



Marking the Text

7. Read the text on the right. Highlight the description of the Mediterranean climate.



Reading Progress Check

8. How do the Westerlies affect the climate in Western Europe?

The British Isles are off the northern coast of France. The English Channel separates southern Britain from northern France. It is a busy sea route connecting the North Sea with the Atlantic Ocean. High-speed trains run through the Chunnel, a tunnel under the English Channel, connecting Britain to mainland Europe.

Western Europe has many rivers and small waterways. Rivers determined the location of important cities, such as London, Paris, and Hamburg. Rivers and canals provide transportation routes for goods and people. Rivers provide water for farming and produce electrical power. They also form political borders. The Thames River in England becomes an **estuary** when it reaches London, then extends to the North Sea. An estuary is where river currents and ocean tides meet. The Rhine is the busiest waterway in Europe. It runs through the most populated region in Europe, from the Swiss Alps to the North Sea.

Climate

Guiding Question *Why is the climate mild in Western Europe?*

Western Europe is located at northern latitudes, but has a milder climate than other places at the same latitudes. This is because most of Western Europe lies in the path of the **Westerlies**. These are strong winds that travel from west to east. They are heated by the warm water of the North Atlantic Current, which originates in the tropical waters of the Caribbean Sea.

This warm, moist air moves inland on the Westerlies. It brings mild temperatures and rain to most of Western Europe throughout the year. Summers are cool, and winters are mild. This climate is known as a marine west coast climate. Because there are no coastal mountain ranges to stop it, the Westerlies blow across the European continent.

Other areas of the region, such as southern France, have a drier climate. Summers are hot and dry, and winters are mild or cool. Most of the rainfall occurs in spring and autumn. This is called a Mediterranean climate.

Natural Resources

Guiding Question *How do the people of Western Europe use the region's natural resources?*

Deposits of coal are plentiful throughout much of Western Europe. Coal fueled machines invented during the Industrial Revolution of the 1800s. Today, coal is less important than other energy sources.

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In 1959 oil and natural gas were discovered under the North Sea. The United Kingdom, the Netherlands, and Germany produce oil and natural gas from the North Sea. Other countries use their rivers to supply energy. Hydroelectricity supplies more than half of Switzerland's electricity needs.

The Northern European Plain has some of the richest soils in Europe. France is Western Europe's leading agricultural producer. Northern France produces wheat. Orchards and vineyards are common in the central and southern parts of the country. Dairy farming is important for the economy of the Netherlands.

The moderate climate and abundant rainfall in most of Western Europe support a variety of plant and animal life. The British Isles have dense forests, grasslands, scrublands, and wetlands. The natural vegetation is mostly **deciduous** forest, or trees that lose their leaves in the fall. The climate on the mainland of Europe is more diverse than that of the British Isles and supports a wider range of plant life.

The drier climates farther inland, as well as the highlands and mountain ranges, support other kinds of plants. **Coniferous** trees, such as fir and pine trees, have cones and needle-shaped leaves. They keep their foliage during the winter. Above the tree line, grasses and shrubs are the most common plants.

Deer, wild boars, hare, and mice are common. Wildcats, lynx, and foxes roam the forests. There are brown bears in the Pyrenees. The number of large animals has decreased in the British Isles, but the islands have more than 200 kinds of birds.



Marking the Text

9. Read the text on the left. Highlight energy sources that are important in Western Europe today.



Defining

10. How do *deciduous* and *coniferous* trees differ from each other?



Reading Progress Check

11. What effect did coal have on the Industrial Revolution?

Writing

Check for Understanding

1. **Informative/Explanatory** Why is the North Sea important to Western Europe?

2. **Informative/Explanatory** Describe the agriculture of Western Europe.
