

Europe

Industrial Revolution took place first in Europe. As factory based production became predominant in the countries of Western Europe, they also tried to establish control over other countries and continents. In this lesson we will try to find out about how the people of Europe have been using their distinct natural environment and resources.

Location of Europe

In order to find out the location of Europe and to see how far it is from India you will need an atlas or a globe. To begin with, look at Map 1 in which Europe has been shaded. Identify the boundaries of the continent of Europe. There is an ocean to the north of Europe. Identify its name on the map. This ocean is frozen for most of the year.

- ◆ Name the ocean to the west of Europe.

This ocean separates the continents of Europe and North America. About 500 years ago the people of Europe discovered the sea route to America and millions of Europeans migrated to the continent of America and settled down there.

- ◆ Look in the atlas and find the name of the sea just south of Europe.

This sea separates Europe in the north from Africa in the south. The name of this sea means ‘middle of the world’. Do you know why it is called by this name? In

ancient times the people of Europe did not know about other continents like America or Australia. They only knew about Europe, western parts of Asia and northern parts of Africa. You can see that all these regions are situated around the Mediterranean Sea. That is why Europeans thought that this sea was in the centre of the world and named it so. It has been known by this name ever since.

- ◆ Name the mountains to the east of Europe.



Map 1: Location of Europe

These mountains are not very high and they form the eastern boundary of Europe. To the east of these mountains is Asia while Europe is to their west. In fact Asia and Europe are one continuous landmass. This landmass is therefore called Eurasia.

- ◆ Now you are familiar with the location of Europe. You can look at the countries of Europe. Look at Map 2 to find out their names. Have you heard of some of these countries before?
- ◆ Map 3 has been left blank for your use. Write the names of the countries of Europe on this map and colour them in different colours. See that no two neighbouring countries have the same colour.



Fig 5.1 Budapest, capital of Hungary by the river Danube in Eastern Europe

The Caucasian Mountains, which lie between the Caspian Sea and the Black Sea form the southern boundary of Europe. They, too, are very high and covered with snow all the year round.

There are no large plateaus in Europe. There are only some small plateaus in countries like France, Germany and Spain. There are vast plains in Europe. The whole of Eastern Europe is a vast plain, which stretches across several countries like Russia, Ukraine, Poland, Bylorussia, etc. These plains experience heavy snowfall and bitter cold in winters. When the snow melts in summer, small streams start flowing. These join to form mighty rivers. It is from these plains that rivers like the Dniپر and the Volga, which is the longest river in Europe, originate.

European rivers are used not only for irrigating the fields but also as major waterways; ships and barges ply on these rivers and transport people and goods from place to place. Since these rivers flow across several countries they also facilitate international trade and transport. In this respect, the Rhine is one of the most important rivers as it flows through several

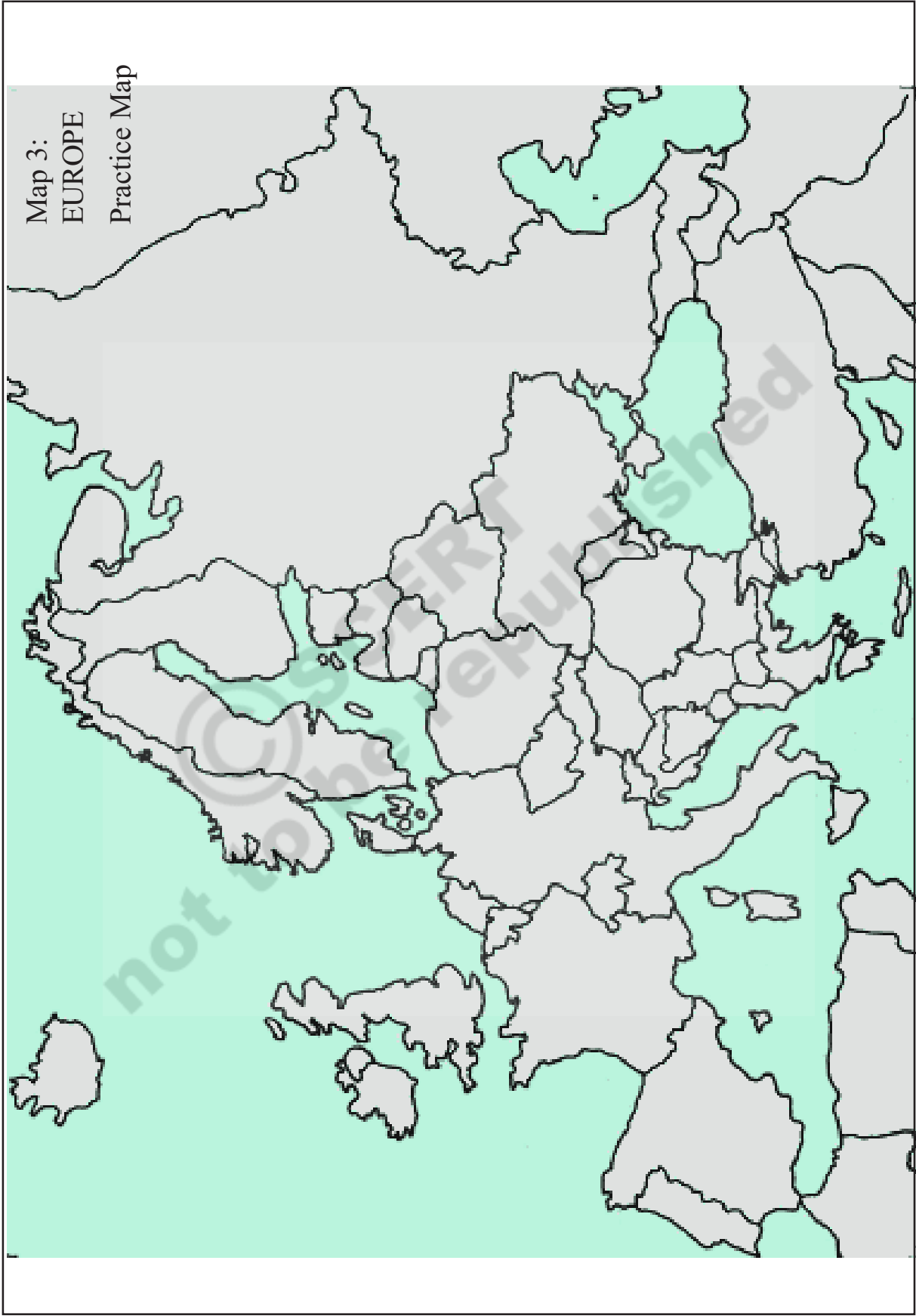
Mountains, Plains and Rivers

Let us learn more about the mountains, plains and rivers of Europe with the help of Map 4. Europe has several high snow-covered mountains. Look for the Alps and the Pyrenees in the map. The Alps, the most important mountain ranges of Europe, are covered with snow all the year round.

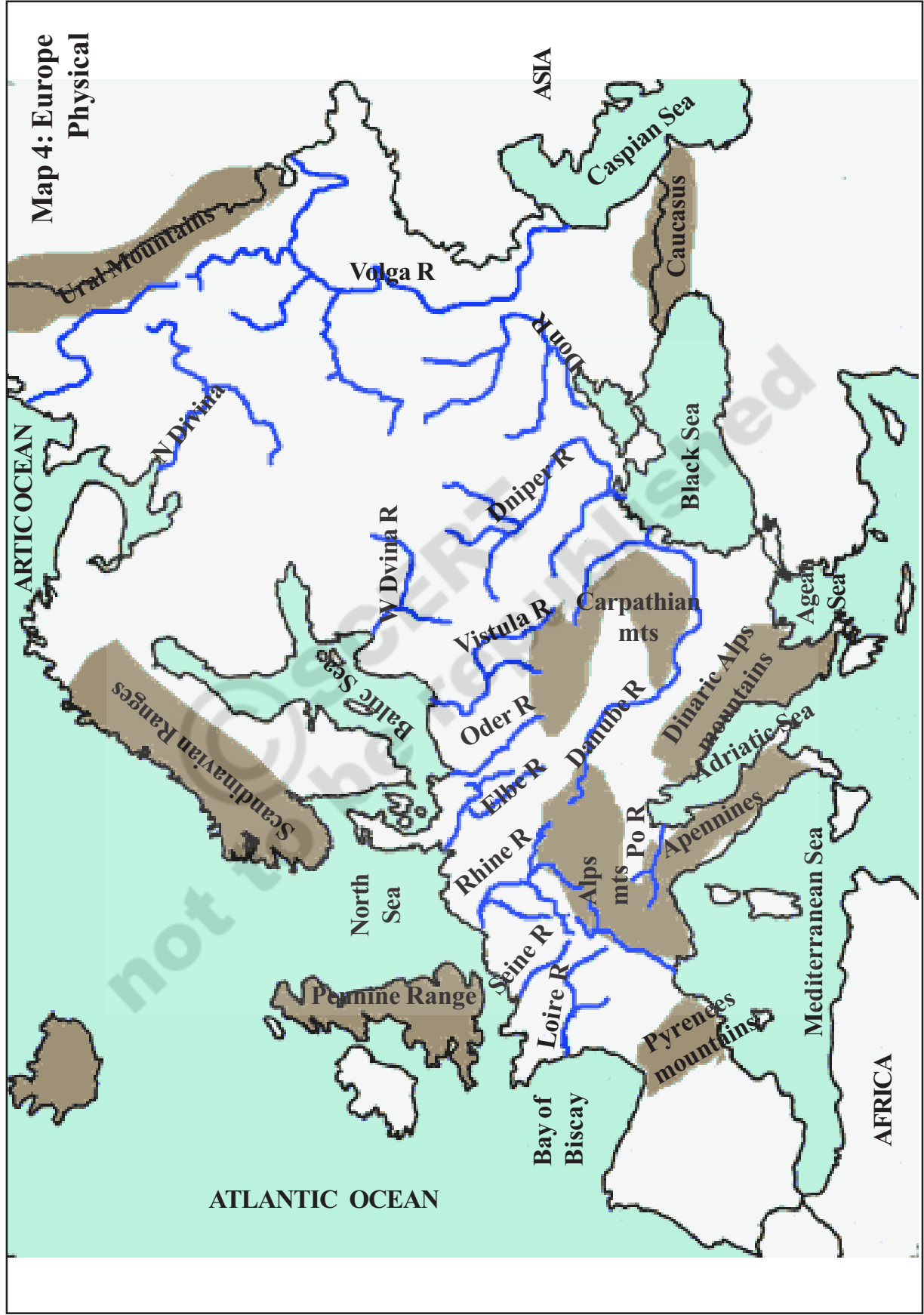
- ◆ The Alps stretch across several countries. Find out the names of these countries by comparing Maps 2 and 4.
- ◆ Write the names of two rivers starting from the Alps.
- ◆ Name the countries across whose borders the Pyrenees stretch.
- ◆ Name the mountains stretching the Eastern Europe.
- ◆ Identify the other mountains in Europe and prepare a table.

Map 2: Europe Political





Map 4: Europe
Physical



countries and empties itself into the North Sea. There are several major industrial and mining cities on the open sea and thus linked to intercontinental trade. Unlike the Rhine, the Volga drains into the Caspian Sea, which you may remember is a vast lake. Transport to the open sea through this river-way is not possible. Thus, the cities on the Volga are not linked to transcontinental trade through waterways.

- ◆ Study Maps 2 and 4 to answer the following questions:
- ◆ Names of countries through which the Rhine flows: 1..... 2..... 3..... 4..... 5.....
- ◆ Names of countries through which the Danube flows: 1..... 2..... 3..... 4..... 5.....
- ◆ Names of two mountain ranges on the border of the Hungarian plains. 1..... 2.....
- ◆ Names of countries which ring the Black Sea. 1..... 2..... 3..... 4..... 5.....
- ◆ Names of oceans or seas into which the following rivers empty themselves:

River	Ocean/Sea
1. Seine	
2. Rhine	
3. Oder	
4. Po	
5. Danube	
6. Vistula	
7. Volga	
8. Dniper	
9. Don	
10. Dvina	

Peninsulas, Islands and Bays

You can see on the map that the sea coast of Europe is very jagged. In several places it appears that the sea has cut deep into the land as in the case of the Baltic Sea. Elsewhere, it would appear that a part of the land has stretched far into the sea as in the case of Italy.

Italy is surrounded on three sides by the sea. Land masses that are surrounded by the sea on three sides and connected to the mainland on the fourth side are called 'peninsulas'. Norway and Sweden are also part of a peninsula. You can check this out in the map. This peninsula is called the Scandinavian Peninsula.



Fig 5.2 Peninsula and Bay

- ◆ Which of these is a peninsula: Greece or France?
- ◆ Are Spain and Portugal peninsulas, too?
- ◆ Name the mountain range in the Scandinavian Peninsula.

The sea surrounds some of the European countries, not just on three sides but on all four sides! These are island countries. Great Britain is one such island country.

- ◆ Find out the names of some of the other island countries of Europe.

Since ancient times, the seas have played an important role in the lives of the people of these islands and peninsulas. Central and southern Europe is largely mountainous and travel and transport over them is both difficult and expensive. In comparison, sea transport is easy and less expensive. This is the reason why Europeans have been extensively using sea routes since ancient times.

The presence of a large number of bays and gulfs has also facilitated the use of sea routes. *Bays* and *gulfs* are parts of the sea enclosed by land on three sides. In a bay the land curves inwards and the mouth of the bay is usually wide as in the Bay of Bengal. A gulf is a narrow inlet of the sea and has a narrow mouth. The entire Baltic Sea as you can see in the map is a large gulf. Since the bays and gulfs are protected from the storms of the high seas they are very useful for building harbours where ships can be safely anchored and cargo loaded or unloaded. Deep gulfs or bays are preferred for building harbours as large ships can be anchored in them. Ships need deep waters so that their bottoms do not touch the sea floor.

- ◆ Find out from Map 4 the names of the countries on the three sides of the Baltic Sea.

Climate

Europe has a cooler climate than ours. Most of its countries experience snowfall in winter. Their summers, too, are not as warm as ours.

Free Distribution by Govt. of A.P.

- ◆ Why do you think the climate of Europe is so different from ours? Discuss among yourselves in the class.

Distance from the Equator

The regions near the Equator remain warm all round the year and as we move northwards or southwards away from the Equator, it gets cooler and cooler. Indeed the Polar Regions are covered with ice all round the year.

- ◆ Look at a globe to see how far is north Europe from the Equator.
- ◆ Is Europe even farther north than India?
- ◆ Will Norway be warmer than Italy? Why?

The Atlantic Ocean

Besides its distance from the Equator, the climate of Europe is influenced by another factor – the Atlantic Ocean and the winds blowing from it. This impact is felt more by the regions along the Atlantic Ocean than the ones which are far inland.

- ◆ To begin with, find out which part of Europe is along the Atlantic Ocean – the eastern or the western part?

In the winters it is quite cold in Western Europe but it is even colder in Eastern Europe. Thus countries like Poland and Russia have severe winters while France and Great Britain are comparatively warmer. Russian winters are so cold that the rivers and even the nearby seas freeze. However, this does not happen in the countries of Western Europe along the sea coast.

- ◆ Look at the map to be able to tell whether it will be warmer in Spain or in Slovakia.

You would have guessed that this difference must be because of the nearness of Western Europe to the Atlantic Ocean. Let us see exactly how this ocean affects the climate of Europe.

Westerlies

Winds blow all the year round from the Atlantic Ocean towards Europe. Since they blow from the west these winds are called 'Westerlies' (Actually these blow from the southwest towards the northeast). These winds are warmer than the land temperature and are also moist. The climate of Western Europe is affected by these warm and moist winds all the year round as they blow throughout the year.

- ◆ Can you guess what the impact of the Westerlies would be?

Warm Ocean Currents

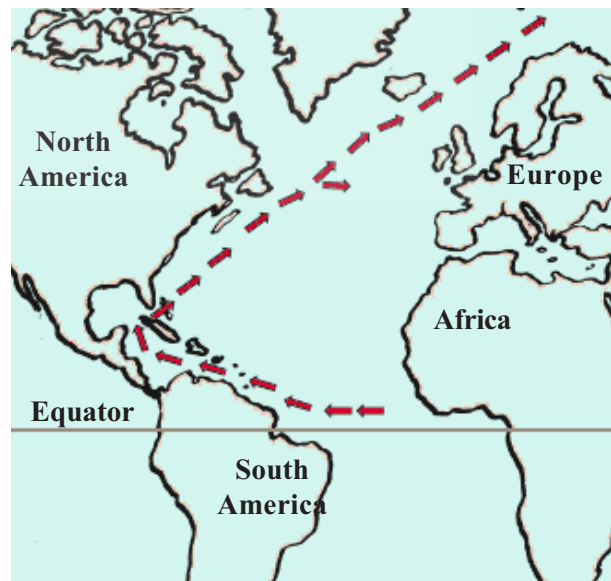
The waters in the oceans are not static. They keep flowing from one place to another along the continents. These are the ocean currents, which flow for thousands of kilometers in the ocean just as rivers flow on land.

One such ocean current is to be found in the Atlantic Ocean. This current originates near the Equator where the waters are warm throughout the year. This current flows westward to North America. It flows north along the eastern coast of America under the impact of the Westerlies and then advances towards Europe. Moving northeast, it hits the western coast of Europe. This current is called 'Gulf Stream' in America, while in Europe it is called 'North Atlantic Drift'.

The coastal waters of the east coast of North America and the west coast of Europe do not freeze in winters, thanks to the Gulf Stream. Thus it is possible for ships to visit the ports on these coasts in winter.



Map 5: The Westerlies



Map 6: Gulf Stream

- ◆ Why do you think the climate of Eastern Europe is not so strongly affected by the warm currents?

Fill in the blanks:

- ◆ The waters near the Equator are..... (warm / cool / icy cold)
- ◆ Starting near the Equator, the Gulf Stream reaches the coast of America. (eastern / western / northern)
- ◆ The Gulf Stream flows in the (Atlantic Ocean / Mediterranean Sea / Black Sea)
- ◆ The waters of the Gulf Stream which hit the European coast are (cold / warm / icy cold)
- ◆ The Westerlies blow from the Atlantic Ocean towards Europe (in winter / in summer / all round the year)
- ◆ These winds are (dry / moist / icy)

Western Europe: Showers all the Year Round

The Westerlies, which blow throughout the year also bring ample moisture to northern and Western Europe. Since these winds blow from the sea they carry a lot of moisture and regularly cause rainfall. This is why it rains throughout the year in northern and Western Europe. While it rains only for a few months in our country, there are light showers all round the year in Western Europe. The skies there are usually clouded. While we, in India, eagerly await cool showers, the people of Western Europe long for bright sunny days.

- ◆ What differences did you notice between the climates of India and west Europe?

Western Europe also benefits in other ways from the Gulf Stream. The warm currents are very good for fish breeding as they contain ample food materials for the fishes. As a result the fishery industry is very well developed in the North Sea near Britain. This part of the North Sea is called '*Dogger Bank*'. Fish is an important part of the food of the Europeans and fishing is a very important industry in Europe.

- ◆ Name the countries which would benefit from the Dogger Bank.

Mediterranean Climate in Southern Europe

Let us look at the countries of Southern Europe. All of them have the Mediterranean Sea to their south. They are called 'Mediterranean Countries'. The lands along the Mediterranean Sea have a distinct climate called the '*Mediterranean climate*'.

- ◆ Look at Map 2 and name four Mediterranean countries.

The Mediterranean countries are the southernmost countries of Europe. As a result the winters here are not too cold and summers are warm. It does not rain all through the year as in Western Europe. The Westerlies blow here during the winter months only. These winds bring rain to the Mediterranean countries. In other words, it rains here only in winter. Such rainy winters and dry summers are termed as '*Mediterranean climate*'. Several regions

in other continents too have a Mediterranean climate. This climate is very good for growing juicy fruits. Thus regions with Mediterranean climate are famous for their fruits. Fruits like olives, figs, grapes, oranges, etc. are grown extensively in southern Europe.

- ◆ Compare Mediterranean and Andhra Pradesh climates on the following aspects:

Seasons

Rainfall

- ◆ When does it rain most in your state, in summer months or in winter months?
- ◆ Find out if your region gets light winter showers and the name given to it in the regional language.
- ◆ Fishing is of importance in,
- ◆ whereas fruit growing is important in

Land, Climate and Agriculture

European plains and river valleys are very fertile. It rains here all through the year and the rivers, too, do not dry up in any season. As a result the plains are very suitable for agriculture. However, a very large part of Europe is mountainous and not suitable for agriculture. Some countries have very little agricultural land. For example, only 3% of the land of Norway is available for cultivation. 30% of England

is cultivable while in Germany it is about 40%. This is very different from our country. In India as much as 55% of the land is cultivable.

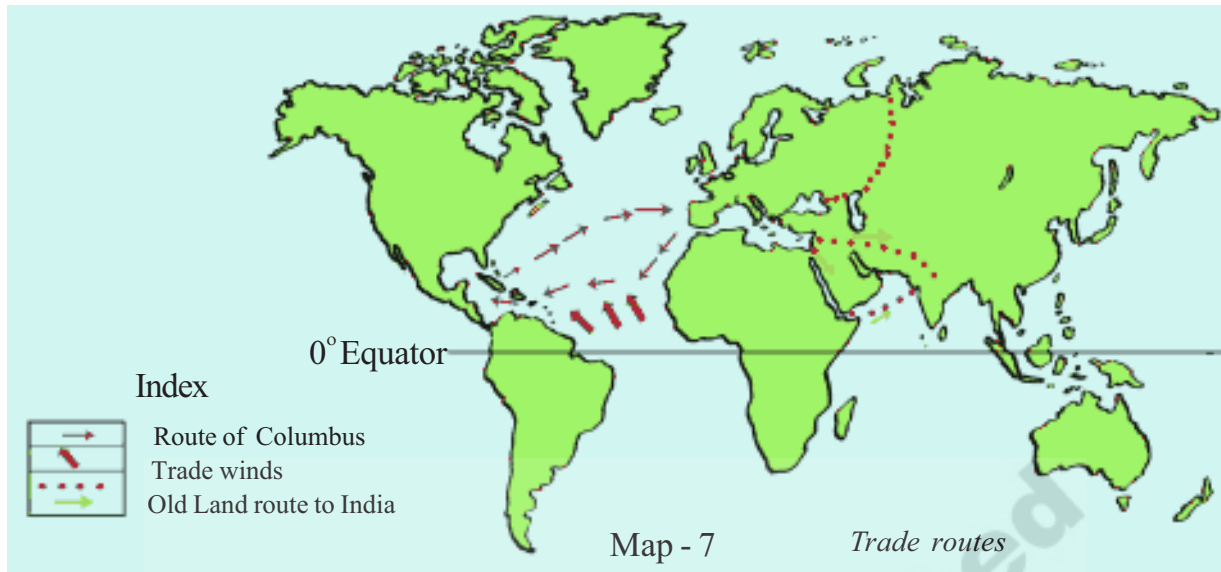
There is an acute shortage of land in Holland. The people of Holland (the Dutch) have reclaimed small portions of land from the sea by building embankments called dykes to push back the sea. The land that is reclaimed is called 'polder'.

In eastern and northern Europe, it is not possible to cultivate the land in winter due to the extreme cold. Snow that covers the land for almost six months begins to melt only in spring leaving very little time for crops to mature. It is in spring that sowing takes place and crops mature in the summer months and are ready for harvest in autumn. As a result it is possible to raise only one crop in a year in these parts. However, in southern Europe it is possible to raise two crops a year.

- ◆ Can you reason why it is possible to raise two crops in the Mediterranean countries?



Fig 5.3 Hay bales after the harvest which will be stored as fodder for winter.



Wheat is the main crop of European plains. It is grown extensively in France, Germany, Russia, Ukraine, Poland, Italy, Greece, etc. We have seen that fruit cultivation is prominent in southern Europe. Fruits like grapes are used for making wine. The Mediterranean countries like Portugal, Spain, Italy and southern France are famous for their wines.

Barley, oats, rye, sugar-beet, potato, etc. are also important crops of Europe. Sugar is manufactured from beet in Russia, Ukraine and Germany.

Discovery of Sea Routes

No part of western Europe is too far from the ocean. In contrast many countries of Asia are thousands of kilometers from the sea.

- ◆ Look at the wall map or atlas to identify the names of at least six cities of Europe which are situated on the sea coast.

There are thousands of such seaside settlements where seafaring people have

been living for hundreds of years. With centuries of experience of sea travel the European sailors were famed for their skill and courage on the seas. They were also skilled in building boats and ships. Initially they were built for fishing in deep seas. Gradually besides being used for fishing, ships began to be used for international trade.

From the very ancient times the people of Europe have been trading with India and other countries of Asia like Indonesia and China. From these countries Europe obtained many things like cotton and silk cloth, gems, ivory and spices such as cloves, pepper, and cinnamon – that were not available in Europe. The Europeans got these in exchange for gold and silver, which they brought from Europe. Do you know what route they took from Europe to India? Look at map 7 in which two major routes are given. Both the routes crossed the Mediterranean Sea; while one of them took a land route via the Middle East, Iran, and Afghanistan, the other route took a sea route via the Red Sea and the Arabian Sea.

About five hundred years ago the West European sailors and traders began to search for new routes to India. This was because both the routes mentioned above passed through countries ruled by the Arabs who were often at war with the Europeans. Further, most of the trade in the Mediterranean Sea was controlled by Italian merchants who did not let traders of other countries in easily. That is why the sailors of the other countries began to look for routes to India which did not have to pass through the Mediterranean Sea or the Arab ruled countries.

- ◆ Looking at the map can you tell what the new route could be?

Of course these maps did not exist in those days and people had just begun to figure out that the earth must be round and not flat. An Italian sailor named Christopher Columbus thought: 'If the earth is round then it should be possible to reach India from the west too. If we were to travel westward across the Atlantic Ocean we would reach China and India sooner or later.'

- ◆ Look at a globe to check whether Columbus's thinking was correct.

Columbus set out with three ships in 1492 to cross the Atlantic Ocean. After three months of sailing he saw land ahead. Columbus thought that he had reached India. Actually he was still far from India; he had reached the country which we now call the West Indies. These are a group of islands near America. In fact Europeans did not know of America before Columbus. In a way he 'stumbled' onto America. Soon Europeans realized that Columbus had not

reached India but a new unknown continent. After that several Europeans went to America to trade, conquer and settle.

The ships of those times had sails to harness wind-power. They sailed with ease with the winds blowing westwards towards America. Which were these winds blowing westwards taking ships from Europe to America? Were these the Westerlies? No, these were not the Westerlies, which blew towards Europe. These were different winds, which blew from the south of Europe towards the south-west direction. They blew throughout the year and took ships from south-west Europe to the east coast of America. These winds are called 'Trade Winds' (Map 7).

The Westerlies blow from the south-west to the north-east to the south-west. In other words the two winds blow in opposite directions all through the year (both these winds are shown on Map 7). This helped Europeans to travel to and from America easily. They could go to America using the Trade Winds.

Look at Map 7 and answer the following questions :

- ◆ Which winds would help the sailors to return to Europe from America?
- ◆ Could the sail driven ships use the Trade Winds to return to Europe? Give reasons for your answer.

After Columbus the Europeans discovered several sea routes. They could now sail not only to America but also to different parts of Africa, India and Australia. They traded with these countries and amassed immense wealth, which was used to develop industries in Europe.

Industrial Revolution in Europe

The industrial revolution as you know started in England around 1750 and soon factory production spread to France, Holland, Germany, Spain, Russia, etc. Countries like England and Germany which had large reserves of coal and other minerals took lead in developing new industries. However, as times changed, European countries began to use less and less of their own mineral resources and relied on imports from other countries. The old mining towns and old factories were closed down and new factories grew in new areas. Industrialisation also enabled the European countries to import agricultural

goods from other countries. Thus they relied less on the agriculture of their countries for their food and raw material requirements. Hence Europe became dependent upon trade with other countries. Initially this trade was with their colonies in Asia, Africa and America. However as the colonies became independent, they had to develop new ways of trading with them.

Key words :

1. Peninsula
2. Island
3. Bay
4. Currents
5. Gulf
6. Climate

Improve your learning

1. The Atlantic Ocean has had a deep impact on the climate of Europe as well as on the life and livelihood of the people of Europe. Collect all the references regarding how this ocean affects the climate of Europe and the life of the Europeans and write an essay on the theme.
2. Answer these questions with the help of the maps given in the lesson:
Which of the following is not a landlocked (surrounded by land) country – (Hungary / Romania / Poland / Switzerland)?
Which mountains lie between the Caspian Sea and the Black Sea – (Alps / Caucasus Mountains)?
Which countries are on the shores of the Arctic Ocean – (Russia / Germany / Sweden / Norway)?
Can a ship sail from the Black Sea to the Atlantic Ocean? If yes, trace the route it will have to take.
3. Why are harbours built in deep gulfs or bays?
4. Why are the winters less severe in Western Europe than in Eastern Europe?
5. Name four countries on the coast of the Black Sea.
6. How do the Westerlies benefit the people of Western Europe?
7. What are the characteristics of the Mediterranean climate? Name the countries which have a Mediterranean climate.
8. What are the factors that limit European agriculture?
9. Name the important crops of southern Europe.