

6

Spain's natural environment

 In this unit you will learn the answers to these questions:

- Where is Spain? What territories does it consist of?
- What is the geographical **relief** of Spain?
- Where do Spain's rivers flow?
- What are the main features of Spain's **landscape** and **climate**?
- What natural **hazards** are there in our country?
- What **environmental** problems are there and how can we solve them?

Before you start, check you understand the meaning of the words in blue.

KEY WORDS

relief: the differences between the high and low areas of a section of land

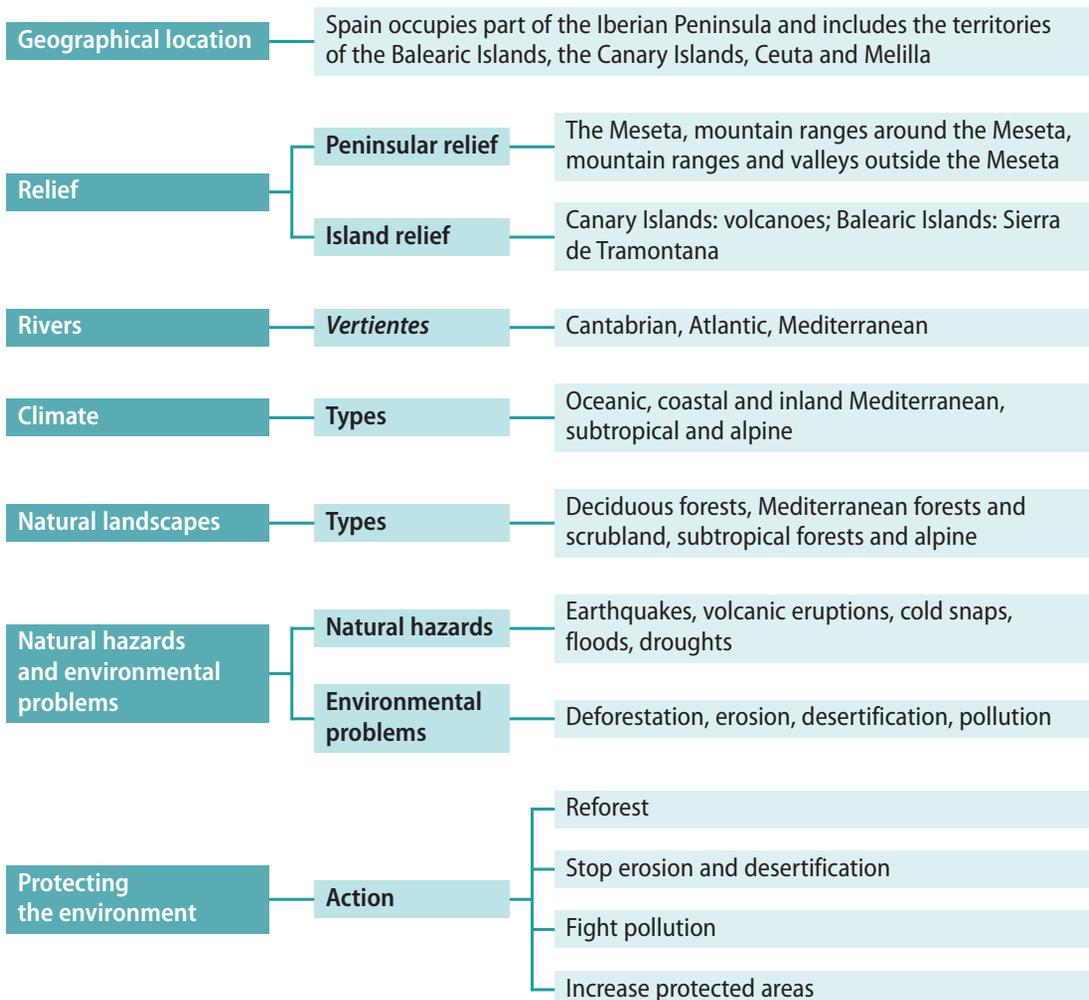
landscape: the physical elements of the land

climate: the typical weather conditions of an area

natural hazards: risks or dangers such as floods or earthquakes which occur naturally

environmental: relating to the area and conditions in which people, animals and plants live (the 'environment')

Unit summary



KEY WORDS

peninsula: an area of land almost surrounded by water

plateau: a high, flat area of land

island: an area of land with water all around it

vertiente: the area of land containing all the rivers that flow into the same sea or ocean

flow (noun): the amount and speed of water in a river

1 Location, relief and rivers

Spain consists of most of the **Iberian Peninsula**, the **Balearic Islands**, the **Canary Islands** and the towns of **Ceuta** and **Melilla**.

We can classify the geographical relief of Spain into the relief of the Peninsula and the relief of the islands.

- **Peninsular relief:** the Meseta, a **plateau** surrounded by the Cordillera Cantábrica, the Macizo Galaico-Leonés, the Sistema Ibérico and the Sierra Morena. Beyond the Meseta, are the Pyrenees, the Cordilleras Costero-Catalanas, the Sistemas Béticos and the **Ebro** and **Guadalquivir Valleys**.
- **Island relief:** volcanoes on the Canary Islands. The Sierra de Tramontana (Mallorca) is in the Balearic Islands.

The rivers of mainland Spain can be classified into different **vertientes** according to the sea or ocean they flow into:

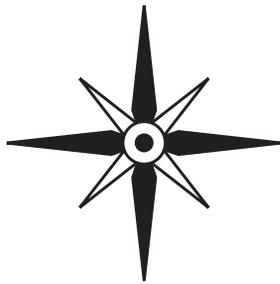
- **Cantabrian:** the rivers are short and the **flow** is regular.
- **Atlantic:** most rivers are long and the flow is irregular.
- **Mediterranean:** the rivers are short and the flow is irregular.

In Spain there are also many **small lakes**.



Activities

1 Copy the compass into your exercise book. Then add these compass points: *north, south, east, west, north-east, north-west, south-east, south-west*.



2 Find the places listed below on the map. Then use compass directions (such as south-west or north-east) to say where they are.

Example: *Cabo Ortegal is in the north-west.*

- | | |
|-----------------------------|----------------------------|
| a) Cabo Ortegal | d) Golfo de Vizcaya |
| b) Cabo de Gata | e) Golfo de Cádiz |
| c) Golfo de Valencia | f) Cabo de Creus |

3 Look at the map showing the relief of Spain. Are these mountain ranges in the north, south, east or west of the Iberian Peninsula?

- a)** Cordilleras Costero-Catalanas
- b)** Cordillera Cantábrica
- c)** Sistema Béticos

4 Find other mountain ranges mentioned in the text and say in which part of Spain (north, south, east or west) they are located.

5 Copy these sentences into your exercise book and complete them with the correct option.

- a)** The highest peak in Spain is *Mulhacén / Teide* _____ .
- b)** The highest point in the Iberian Peninsula is *Mulhacén / Teide* _____ .

6 Look at the map showing the relief of Spain. In which range of mountains are these peaks?

- | | |
|--------------------|--------------------------|
| a) Almanzor | c) Mulhacén |
| b) Aneto | d) Las Villuercas |

7 Are these islands in the Balearic Islands or Canary Islands?

- | | |
|---------------------|---------------------|
| a) Mallorca | d) Lanzarote |
| b) La Gomera | e) La Palma |
| c) Menorca | f) Ibiza |

8 Using information from the map showing the relief of Spain, copy and complete the sentences in your exercise book.

- a)** The River Bidasoa is *longer / shorter* _____ than the Duero.
- b)** The River Sil is a tributary of the *Tajo / Miño* _____ .
- c)** The rivers of the Cantabrian *vertiente* are *more / less* _____ regular than the rivers of the Atlantic *vertiente*.

9 Which sea or ocean do these rivers flow into?

- | | |
|----------------|-----------------|
| a) Miño | c) Nalón |
| b) Ter | d) Tajo |

KEY WORDS

inland: not on the coast

deciduous: trees that lose their leaves in autumn (the opposite is evergreen)

scrubland: an uncultivated, often dry area of land with low bushes

bush: a low plant with many branches near the ground

2 Climate and natural landscapes

Spain has a variety of climate types.

Climate type	Temperature		Rainfall
	Winter	Summer	
Oceanic	mild	cool	regular, abundant all year
Mediterranean coastal	mild	hot	scarce
Mediterranean inland	cold	hot	scarce
Subtropical	warm	warm	irregular, scarce
Alpine	cold	cool	abundant, often snow

Spain has the following natural landscapes:

Natural landscapes

Deciduous forests

Climate: oceanic

Examples of vegetation: deciduous trees, grassland

Examples of fauna: *urogallo*, hare, otter, wolf, bear, fox



Subtropical forests

Climate: subtropical

Examples of vegetation: pine, laurel and dragon trees

Examples of fauna: many endemic animals, such as Bolle's pigeon



Mediterranean forests and scrubland

Climate: inland and coastal Mediterranean

Examples of vegetation: oak and pine trees, bushes, aromatic plants such as lavender and thyme

Examples of fauna: rabbit, lynx, wolf, imperial eagle



Alpine

Climate: alpine

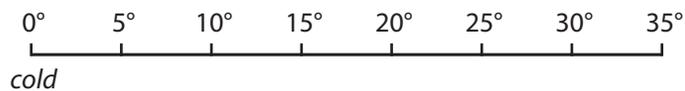
Examples of vegetation: pine and fir trees, bushes and grassland

Examples of fauna: mountain goat, vulture



Activities

10 Copy the temperature scale in your exercise book and label it with the adjectives: *mild, cold, cool, warm, hot*.

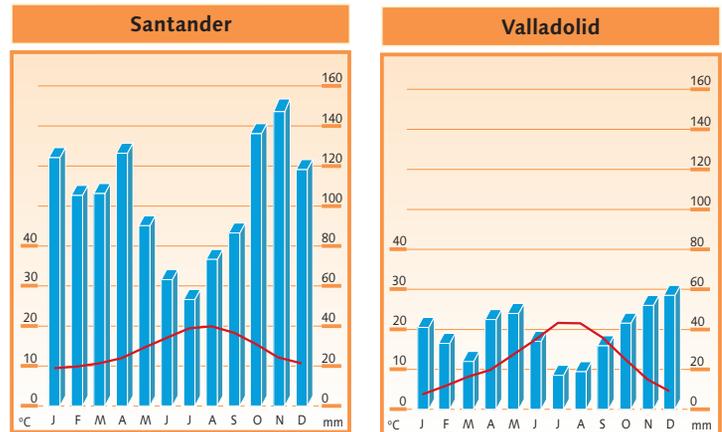


11 Look at the climate table. Choose the correct word to complete the sentences and copy them into your exercise book.

- a) The oceanic climate has *more/less* _____ rain than the subtropical climate.
- b) Winter is *colder/warmer* _____ in the inland Mediterranean climate than the coastal Mediterranean.

12 Look at the climate graphs for Santander and Valladolid. Choose the correct comparative adjectives and complete the sentences in your exercise book.

- a) Winters are *hotter/colder* _____ in Valladolid than in Santander.
- b) Summers are *cooler/hotter* _____ in Valladolid than in Santander.
- c) Rainfall is *more/less* _____ abundant in Santander than in Valladolid.
- d) Summers are *wetter/drier* _____ in Valladolid than in Santander.



13 Identify the landscapes in the photos and describe the vegetation.



14 Name the animals in the photos.



KEY WORDS

damage: to cause physical harm to something or someone

crops: plants we grow for food

volcanic eruption: the explosion of ash and lava from a volcano

deforestation: the cutting down of most of the trees in an area

erosion: the disappearing of rocks, stones and soil caused by rain, rivers, waves or wind

overgrazing: when animals eat too much of the grass and other vegetation that is growing in a field

national park: a natural area protected by the State

3 Natural hazards and environmental problems

3.1. Natural hazards

Hazards are natural events which can cause **damage** to people and property (buildings, **crops**, animals). Spain has the following natural hazards:

- **Earthquakes** are rare in Spain but there are sometimes tremors, especially in the south of the country.
- **Volcanic eruptions** mainly affect the islands of La Palma, Tenerife and Lanzarote (Canary Islands).
- **Cold snaps** are periods of very cold weather which can damage crops and affect transportation and communications.
- **Floods** occur especially on the Mediterranean and Cantabrian coasts. They can damage homes and crops and kill people and animals.
- **Drought** occurs when there is a long period without rain. It can cause serious problems for agriculture (both plants and animals) as well as for people. It happens most often in the south and in the Mediterranean regions.

3.2. Environmental problems

- **Deforestation** occurs in order to make open spaces for crops or grazing or to clear the land for building. It is also caused by forest fires.
- **Erosion** is a natural process but increases with the use of aggressive farming techniques.
- **Desertification** occurs as a result of deforestation and **overgrazing**.
- **Atmospheric pollution** is mainly caused by the emission of gases from factories, power stations and vehicles.
- **Noise pollution** is the generation of excessive noise, mostly by traffic and aircraft.
- **Water and land pollution** is mainly caused by waste products from agriculture, industry and homes.

3.3. Protecting the environment

We can do the following to **protect the environment**:

- Plant trees, increase the number of forests and replant damaged forested areas.
- Develop action plans to slow down erosion and desertification.
- Fight pollution by reducing gas emissions and encouraging the use of renewable sources of energy, public transport, etc.
- Increase protected areas like **national parks**.



Doñana National Park

Activities

15  Listen and repeat the words. Then translate them into your language.

earthquake

volcanic eruption

cold snap

flood

drought

16 Read the text again and answer the questions in your exercise book.

- a) Are there frequent earthquakes in Spain?
- b) Where in Spain do volcanic eruptions happen?
- c) What happens when there is a cold snap?
- d) What problems can floods cause?
- e) What causes droughts?

17  What to do in a cold snap? Copy the sentences in your exercise book and complete them with *do* or *don't*. Listen and check.

- a) _____ go out unless you really have to.
- b) _____ wear lots of different light clothes, not just a big jumper or coat.
- c) _____ forget your hat and gloves!
- d) _____ walk carefully and _____ slip on the ice or snow.
- e) _____ use public transport.
- f) _____ run or jump on ice.
- g) _____ put heaters near the curtains.
- h) _____ open the windows for a few minutes every day to get some fresh air.

18 In pairs, choose another natural hazard and make a list of some *do's* and *don'ts* to tell the class.

19 Discuss the questions together.

- a) Apart from fires, what causes deforestation?
- b) Where is it common to see natural erosion?
- c) What areas of the country suffer from desertification?
- d) What causes air pollution?

20 With a partner think of four things you can do to help protect the environment and tell the class.

Example: *We can use both sides of a sheet of paper.*

21 Imagine you're visiting a national park. Copy the rules listed below into your exercise book then complete them with *can*, *must* or *mustn't*.

- a) You _____ feed the animals.
- b) You _____ take photos.
- c) You _____ pick flowers.
- d) You _____ have a picnic.
- e) You _____ put your rubbish in the bins (or take it home).
- f) You _____ make lots of noise.
- g) You _____ light fires.
- h) You _____ hunt or fish.

22 Who in the class has visited a national park? Can they describe it?

Example: *I've visited the Picos de Europa. The mountains are very high and there's not much vegetation at the top. There are many roe deer.*

Revision activities

1 Choose the correct options and write your answers in your exercise book. Then listen and check your answers.

- a)** Spain is *bigger than / nearly as big as* _____ France.
- b)** Spain is situated *north / south* _____ of the Pyrenees.
- c)** The Mediterranean Sea is to the *west and north / east and south* _____ of Spain.
- d)** Spain has *one type / various types* _____ of climate.
- e)** In the interior of Spain, winters are *cold / mild* _____.
- f)** In most of Spain summers are *sunny and warm / cloudy and cold* _____.

2 In your exercise book, write some sentences comparing the oceanic and Mediterranean coastal climates. Use these adjectives: *abundant, regular, mild, cool, warm, scarce, irregular*.

3 Copy and complete the sentences in your exercise book with the correct verb.

- a)** La Meseta *is / isn't* _____ in the centre of the Iberian Peninsula.
- b)** The River Genil *is / isn't* _____ a tributary of the River Guadalquivir.
- c)** The Balearic Islands *are / aren't* _____ in the Mediterranean Sea.
- d)** The River Ebro *is / isn't* _____ a tributary of the River Tajo.
- e)** The Canary Islands *are / aren't* _____ in the Mediterranean Sea.
- f)** The Cordillera Cantábrica *is / isn't* _____ in the north of the Iberian Peninsula.

4 Answer the questions.

- a)** In what part of Spain are the Montes de Toledo?
- b)** What are the differences between the rivers of the Cantabrian and Atlantic *vertientes*?
- c)** What environmental problems affect Spain?
- d)** What is a national park? Name three national parks in Spain.
- e)** What is Spain doing to protect the environment?

5 Look on the Internet and write a list of *do's* and *don'ts* for a flood.

6 Name the types of vegetation shown in the photos.



Talking points

7 Tell your classmates in which area of Spain you would like to live and why. Talk about the relief, climate and vegetation.

Example: *I'd like to live in _____ because the climate is _____.*

There are _____ and _____.

8 What environmental problem in Spain do you think is the most serious and why? Compare your opinion in groups.

Example: *I think _____ is the most serious because it affects _____ and causes damage to _____.*

I agree / I don't agree.