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# SOCIAL SCIENCE

# UNIT 1. SPAIN: PHYSICAL ORGANIZATION RELIEF & RIVERS

Exam Date: \_\_\_\_\_

#### UNIT 1. SPAIN: PHYSICAL ORGANIZATION AND RELIEF

In this unit we are going to learn about:

- 1. Spain's localization and territory
- 2. Spain's autonomous communities and provinces
- 3. Spain's relief:
  - The Meseta and Mountain Systems.
  - Coastal relief and the archipelagos
- 4. Spain's Rivers.

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#### 1. SPAIN'S LOCATION AND TERRITORY

Spain is located in the Northern Hemisphere, in the south west of Europe occupying the majority of the Iberian Peninsula. It is formed by:

#### The mainland

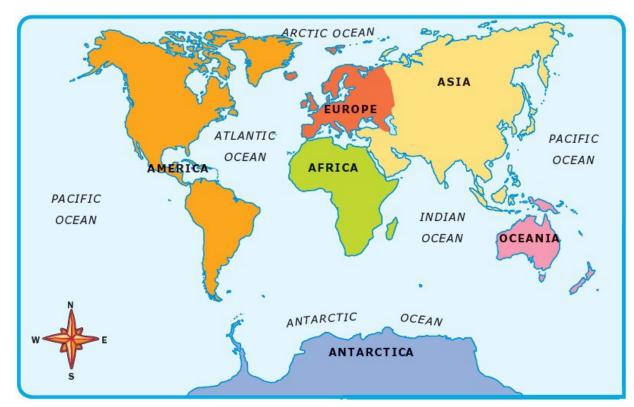
• The mainland of Spain is on the **Iberian Peninsula** (except Portugal), in the southwest of **Europe**. The Rock of Gibraltar (El Peñón de Gibraltar) in the south belongs to the United Kingdom. Africa is 17 kilometres from Tarifa (Cádiz) on the south coast. The sea between Spain and Africa is called Strait of Gibraltar. Spain has got borders with France (The Pyrenees form a natural border), Andorra and the Cantabrian Sea to the North; Portugal and the Atlantic Ocean to the West; Gibraltar, Morocco and the Mediterranean Sea in the South; the Mediterranean Sea is also its border in the east.

## The archipelagos

• Spain has **two** main archipelagos. The archipelago of **Las Islas Canarias** (The Canary Islands) is near the north west coast of Africa, in the Atlantic Ocean. It is made up of seven different islands and some smaller islets. The archipelago of **Las Islas Baleares** (The Balearic Islands) is in the Mediterranean Sea, near the east coast of the Peninsula. It has four main islands and some smaller islets.

#### Ceuta and Melilla

• Ceuta and Melilla are the **autonomous cities** that are part of Spanish territory. They are located in the north coast of **Africa** and are bordered with Morocco.



Span is located in the Northern Hemisphere



Span is located in the Southwest of Europe

# 2. AUTONOMOUS COMMUNITIES AND PROVINCES AUTONOMOUS COMMUNITIES

The total population in Spain is approximately 47 million people. The most populated areas in Spain are big cities as Madrid and

Barcelona. Apart from these, the most populated areas in Spain are along the coast. Spain is made up of:

- 17 Autonomous communities
- 2 Autonomous cities.



N.º	COMUNIDAD	CAPITAL
1	<b>▼</b> Galicia	Santiago de Compostela
2	Principado de Asturias	Oviedo
3	<b>d</b> Cantabria	Santander
4	País Vasco	*Vitoria
5	Navarra	Pamplona
6	== Aragón	Zaragoza
7	<b>■</b> Cataluña	Barcelona
8	₩ Castilla y León	*Valladolid
9	<b>■</b> La Rioja	Logroño
10	Comunidad de Madrid	Madrid
11	<b>Extremadura</b>	Mérida
12	Castilla-La Mancha	Toledo
13	Comunidad Valenciana	Valencia
14	■ Islas Baleares	Palma de Mallorca
15	Andalucía	Sevilla
16	Región de Murcia	Murcia
17	Islas Canarias	Las palmas de Gran Canaria y
		Santa Cruz de Tenerife
NOTA: *No tienen capital legalmente establecida		

#### **PROVINCES**

Each autonomous community is made up of one province or more (7 of the 17 autonomous communities have only one province -

uniprovincial-). Spain has 50 provinces.



#### Comunidades Uniprovinciales

- 1 Cantabria
- 2 Asturias
- 3 Navarra
- 4 La Rioja
- 5 Murcia
- 6 Comunidad de Madrid
- 7 Baleares

#### Comunidades Pluriprovinciales

#### 1 Galicia

La Coruña, Lugo, Orense y Pontevedra

#### 2 País Vasco

Álava, Guipúzcoa, Vizcaya.

#### 3 Cataluña

Barcelona, Tarragona, Lérida, Gerona

#### 4 Comunidad Valenciana

Castellón, Valencia, Alicante.

#### 5 Andalucía

Huelva, Sevilla, Cádiz, Córdoba, Málaga, Jaén, Granada, Almería

#### 6 Castilla y León

León, Palencia, Burgos, Soria, Segovia, Ávila, Salamanca, Zamora, Valladolid

#### 7 Castilla la Mancha

Guadalajara, Cuenca, Albacete, Cuidad Real, Toledo

#### 8 Aragón

Huesca, Zaragoza, Teruel

#### 9 Extremadura

Cáceres, Badajoz

#### 10 Canarias

Santa Cruz de Tenerife y Las Palmas de Gran Canaria

There are 3 provinces made up of islands.

- Two of these are in Canarias:
  - Santa Cruz de Tenerife includes Tenerife, La Gomera, La Palma and El Hierro
  - Las Palmas de Gran Canaria includes Gran Canaria, Fuertentura and Lanzarote
- Islas Baleares is the third province. It's just once province consisting of:
  - Mallorca, Menorca, Ibiza, Formentera and some smaller islands, such as Cabrera.

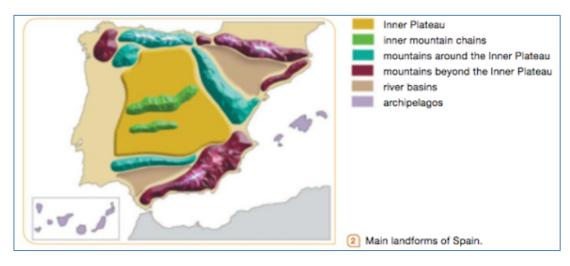
#### 3. SPAIN'S RELIEF

<u>Relief</u> is the shape of the landscape. Mountain relief consists of high ground and slopes. Some surfaces are flat. These are called **plains**. Plains can be **river basins** or **plateaus** depending on how high they are. These are the main characteristics of Spain's landscape:

- Mountains cover a large part of the peninsula and the archipelagos.
- There is a large plateau called the Meseta at the center of the Peninsula, surrounded by mountains.
- The coastline is generally straight with cliffs.

Spain is mainly a <u>mountainous</u> country. It includes six main landforms: The Inner Plateau; two mountain chains on the Plateau; four mountain ranges around the plateau; five mountain ranges beyond the Plateau; two river basins beyond the plateau and two archipelagos.







#### THE INNER PLATEAU (MESETA) AND ITS MOUNTAIN SYSTEMS

The **Meseta** is an **area of elevated plains** or **plateaus** which covers a lot of the peninsula's interior. It is about 600 meters above sea level. It covers the **center** of the Iberian Peninsula, that is, Castilla y León, Castilla-La Mancha, Madrid and Extremadura. The eastern part of La Meseta is higher than the western part and, for this reason, the rivers in La Meseta flow from east to west into the Atlantic Ocean. The rivers Duero, Tajo and Guadiana flow across it.

There are two major mountain systems on it: the **Sistema Central** and **Montes de Toledo**. Large rivers run through it on their way to the Atlantic.

#### Sistema Central

• The Sistema Central is a mountain system in the centre of the Meseta. It divides the Meseta into two subplateaus. The Northern sub-plateau (Duero river valley) is bigger, flatter and higher than the Southern subplateau (Tajo and Guadiana river valleys). The Sistema Central includes mountain ranges over 2000 m high such as Somosierra, Guadarrama, Gata and Gredos. The highest peak is Almanzor (2592 m).

### Montes de Toledo

• The **Montes de Toledo** are a mountain system in the centre of the Sothern sub-plateau, between the Tajo and the Guadiana river valleys. The mountains are moderate height. It includes Sierras de MOntánchez and the Sierra Guadalupe.

#### THE MOUNTAINS SURROUNDING THE MESETA

The Meseta is almost completely surrounded by four chains of mountains.

#### Montes de León

• The **Montes de León** are a mountain range in the **northwest**. They separate the Plateau from the Macizo Galaico. The highest peak is the **Teleno** (2188 m)

#### Cordillera Cantábrica

• The Cordillera Cantábrica is a mountain system in the north. They separate the Meseta from the Cantabrian Sea. It includes the high peaks of the Picos de Europa. They act as a boundary between Castilla y León, Cantabria and Asturias.

#### Sistema Ibérico

• The **Sistema Ibérico** is a mountain system in the **east**, separating the plateau from the Ebro depression (Ebro river basin). They run through Castilla y León, La Rioja, Aragón, Castilla-La Mancha and the Comunidad Valenciana. The main mountain ranges are the **Picos de Urbión**, **Albarracín** and **Moncayo**, **which is the highest peak**. They are over 2000 m high.

#### Sierra Morena

• Sierra Morena is a mountain system in the south. It separates the Plateau from the Guadalquivir Valley. It is not a high mountain system. The main ranges are Despeñaperros, Almadén, Madrona and Alcaráz

#### THE MOUNTAIN RANGES FAR WAY FROM THE MESETA

There are <u>five</u> mountain systems outside the Central Plateau:

#### Macizo Galáico

• The Macizo Galáico is a mountain system in the northwest of the Península. The mountains are low with rounded peaks. The higest peak is Peña Trevinca (2127 m).

#### Montes Vascos

• The Montes Vascos are a mountain range in the north, located between the Cantabrian Mountains and the Pirineos. The Mountains are low mountains, with pointed peaks. They have and uneven relief and are not in rows. The main ranges are the Sierras of Aralar and Aizkorri. The highest peak is Aitxuri (1551 m).

#### Pirineos (Pyrenees)

• The **Pirineos** (Pyrenees) are a large moutain range in the northeast of the Peninsula. They run from the Cantabrian Sea to the Mediterranean. They form the border between France and Spain. The mountains are **very high**. The highest peak is the **Aneto** (3 414 m).

#### Cordilleras Cosero-Catalanas

• The Cordilleras Costero-Catalanas is in the northeast of the Península. They run parallel to the Mediterranean coast, from the Pirineos to the rio Ebro. The mountains are moderate in height and they include the Montseny Range.

#### Sistema Bético

- The Sistema Bético lies to the southeast. It is a mountain system with two parallel ranges:
- <u>Cordillera Penibética</u>. It is close to the Mediterranean coast. <u>Sierra Nevada</u> is one of its main mountain ranges. The highest peak is the <u>Mulhacén</u>, at 3478 m, which is the highest on the Peninsula.
- •<u>Cordillera Subbetica</u>. It is inland and the mountains are lower than in the Cordillera Penibética. The main ranges are the Sierra Cazorla and Sierra de Segura.

### **MOUNTAIN RANGES**

Spain is mainly a **mountainous** country. The average altitude of the Iberian Peninsula is **600m**. The Meseta (Inner Plateau) consists of elevated plains or plateaus. The rivers Duero, Tajo and Guadiana flow across it.

MOUNTAIN RANGES IN THE MESETA		MOUNTAIN RANGES FAR AWAY FROM THE MESETA		
ACROSS THE MESETA	SURROUNDING THE MESETA	These mountain systems are not connected to the Meseta		
<ul> <li>Sistema Central</li> <li>Gredos</li> <li>Guadarrama</li> <li>Somosierra</li> <li>Gata</li> </ul>	• Montes de León - Teleno	Macizo Galáico     Sierra de Trevinca	Montes Vascos     Sierra de Aralar     Sierra de Aizkorri	
<ul> <li>Montes de Toledo</li> <li>Sierra de Guadalupe</li> </ul>	Cordillera Cantábrica     Picos de Europa	• <u>The Pyrenees</u> - Aneto	Cordilleras Costero-Catalanas     Montseny     Montserrat	
	Sistema Ibérico     Picos de Urbión     Moncayo	• <u>Sistema Bético</u> - Cordillera Subbética - Sierra de Cazorla - Sierra de Segura - Cordillera Penibética →	Sierra Nevada <b>→ MULHACÉN</b> (3478m) (Highest peak of the Península)	
	Sierra Morena     Despeñaperros     Almadén	The highest peak of Spain is the <b>TEIDE</b> (3712m). It is a volcanic structure located in the Canary Islands (Province of Tenerife).		

#### THE RIVER BASINS OUTSIDE THE MESETA

A **depression** or <u>river basin</u> is a low, flat area surrounded by higher ground. It has got a river running though it. In Spain there are two large river basins outside the Meseta:

#### Ebro Basin

• It is located in the northeast of the Peninsula, between the Pyrenees and the Systema Ibérico. It is a large triangular plain and the Ebro runs through it. The river deposits materials near the mouth, creating a large traingular area of land called delta.

# Guadalquivir Basin

 This is located in the south of the Peninsula, between Sierra Morena and the Cordillera Subbética. It is a large triangular plain and the Guadalquivir runs through it. There are very fertile marshes near the mouth of the river.



Basin: Flatland and lowland with rivers running across it.

#### THE COASTAL LANDSCAPE AND ISLANDS

A coastline is an area where land meets the ocean or sea. It can have many different forms, such as capes, peninsulas, islands,

archipelagos, bays and gulfs. Coastlines can also have estuaries, marshes and rías.

Spain has about 8000 km of coastline, which is generally cliffed, although is also home to flat, sandy beaches. The coastline of the Iberian Peninsula is divided into <u>five different sections</u>. The Cantabrian coast is rocky. It has many cliffs, bays and beaches. The Galician Atlantic coast is high and rocky. It has many capes and *rías*. The Andalusian Atlantic coast is low and sandy. It has many beaches. The Southern Mediterranean coast has many cliffs and is rocky. The Eastern Mediterranean cost is low, straight and sandy.

<u>Cape</u>: A high point of land that sticks out into the sea or ocean.

<u>Bay</u> and <u>Gulf</u>: They are concavities formed by tidal erosion in the coastline of an ocean, lake or sea. The term bay usually refers to a body of water smaller than a gulf. A <u>cove</u> is a small bay.

<u>Ria:</u> A long, narrow inlet formed by the partial submerge of a river valley.

**Estuary**: Body of water in which river water is mixed with seawater.

<u>Marsh</u>: Type of wetland with soils rich in minerals.



#### The Cantabrian Coast

• It extends from Estaca de Bares, in La Coruña to the border with France. It is generally **high** and **rocky**. It also has some small sandy beaches (Santander). Significant landforms are **Cape Peñas**, **Cape Ajo**, **Cape Matxitxaco**, **Bay of Bizcaya**.

#### The Galician Atlantic Coast

• It runs from Estaca de Bares to the mouth of the Miño river which is at the border with Portugal. Its coastline is high and irregular with rocky cliffs. This coast is famous for its rías. <u>Rías</u> are river estuaries. In Galicia, the rías are divided into las **rías bajas**, in the south, and las **rías altas**, in the north. The **Finisterrre Cape** and **Ria de Arousa** are located here.

#### The Andalusian Atlantic Coast

• It runs from the Guadiana River to the Straight of Gibraltar. It is very **straight**, **sandy** and **low**. Significant landforms are **Huelva Estuary** and **Doñana marsh**.

#### The Andalusian Mediterranean Coast

• It runs from the Straight of Gibraltar to Murcia. It is quite **straight**, with a mixture of **cliffed** and **flat** coast. Significant landforms are the **Gulf of Almeria** and **Cape Gata**.

#### The Eastern Mediterranean Coast

• It runs from Cape Gata to Cape Creus. It has got two parts. The Murcia and Valencia coastlines are sandy and flat with some cliffs. The Catalonian coastline is uneven, rocky and cliffed, with lots of coves. Significant landforms are Cape Palos, Cape Nao, Gulf of Valencia and Ebro Delta.

#### ISLAND LANDSCAPES: THE ARCHIPELAGOS

Spain has two archipelagos: the Balearic Islands and the Canary Islands.

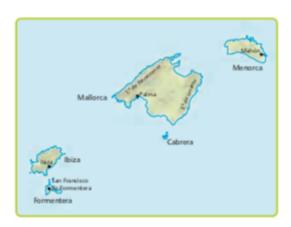
#### The Balearic Islands

The Balearic Islands are in the Mediterranean Sea. They are made up of and archipelago of five islands:
 Malllorca, Menorca, Ibiza, Formentera and Cabrera.
 Mallorca and Ibiza are joined to the Cordillera Bética under the Sea. The are mainly flat islands. Mallorca hastwo mountain ranges, the Sierra Tramuntana and the Sierras the Levante. The coasts are uneven and cliffed, with lots of coves.

#### The Canary Islands

• The Canary Islands are in the **Atlantic Ocean** opposite the west coast of Africa. They include the islands of La Palma, La Gomera, El Hierro, Tenerife, Gran Canaria, Fuerteventura and Lanzarote. These islands have a **volcanic origin**. Some of their volcanoes are still active. The highest peak in Spain, **El Teide** (3718 m), is in Tenerife. The coasts are rocky with cliffs and quite straight, with some long beaches.

**Archipelago**: A large group of islands.





#### **RIVERS**

<u>Rivers</u> are large streams of fresh water that flow across the land. They form in the mountains and flow downhill into the sea, a lake or another river. The study of rivers and other bodies of water, such as seas and lakes is called **hydrography**. When hydrographers study rivers, they consider certain elements and characteristics.

#### **ELEMENTS**

- The **source** is the place where the river begins.
- The **course** is the path it takes, and it can be divided into three sections: the **upper course**, which is the section closest to the source of the river; the **middle course**, the central sections, and the **lower course**, the section closer to the end of the rivers
- The end of the river is called the **mouth**. This is the place where the river flows into the sea, a lake or another river. A river that flows into another river is called a **tributary**.

#### **CHARACTERISTICS**

- The length of a river is the distance between the river's source and its mouth.
- The **flow** is the amount of water.

#### **FACTORS**

Rivers are determined by <u>climate</u> and <u>relief</u>.

- <u>Relief</u> affects the <u>length</u> of rivers. Rivers are short if the rise in mountains near the sea and long, when they rise in far away from the sea they flow into.
- <u>Climate</u> affects the **flow** regime of the rivers: Rivers in wet climates have abundant flow and a regular regime. Rivers in drier climates have an irregular flow regime.

Most rivers in Spain are **short** and have **irregular** flow. This is because, in general, Spin is not a rainy country.

A <u>watershed</u> is an area where all the rivers and streams flow into the same sea. The rivers that flow into the sea, for example the Ebro, are the <u>main rivers</u>. Rivers which flow into other rivers are called <u>tributaries</u>.

There are **three** watersheds in Spain. The <u>Atlantic watershed</u> in the west. The <u>Cantabrian watershed</u> in the north. The <u>Mediterranean watershed</u> in the east and south.



RIVERS			
WATERSHED	DESCRIPTION	RIVERS	
CANTABRIAN WATERSHED Flow into the Cantabrian Sea	It is the smallest in Spain, but its rivers carry a lot of water. Its rivers are very <b>short</b> and <b>steep</b> , because they start in the Cantabrian Mountains, close to the sea This area has abundant rainfall so the rivers have <b>regular</b> , <b>abundant flow</b> .	- <u>Basque Country</u> : Bidasoa, Nervión - <u>Cantabria</u> : Besaya, Pas - <u>Asturias</u> : Nalón, Narcea, Navia - <u>Galicia</u> : Eo	
MEDITERRANEAN WATERSHED Flow into the Mediterranean Sea	The majority of rivers are <b>short</b> (except for the Ebro). They carry <b>little water</b> because of the low rainfall. They have irregular flow of water: less water or drought in summer, which increases in the spring and autumn.	- Ter - Llobregat - Ebro - Turia - Júcar - Segura	
ATLANTIC WATERSHED Flow into the Atlantic Ocean	The Atlantic watershed is the largest. Its rivers are usually long, because they start in mountains long away from the Atlantic Ocean. The volume of water they carry depends on the season.	- <u>Galicia</u> : Tambre, Ulla, Miño, - <u>Meseta</u> : Duero, Tajo, Guadiana - <u>Andalucía</u> : Odiel, Tinto, Guadalquivir.	

#### WATER IN SPAIN'S ISLANDS

The Balearic and Canary Islands **don't have** permanent rivers because of the characteristics of the soil and because they don't receive a lot of rain. Temporary flows of water that form when it rains are called *torrentes* in the Balearic Islands and *barrancos* in the Canaries.