

## Practical Activity 1

### What is the weather and how do we record it?

#### Main Objective:

1. To differentiate between weather and climate;
2. To follow, read and interpret the weather

#### Resources needed:

A large map of the Iberian Peninsula

A Large map of the British Isles

Internet access

Symbol sheets (see 8a.1)

Glue sticks

#### Introduction:

This activity focuses on what we mean by weather. It is essential that you have internet access so as to download weather information using the BBC weatherwise website:

<http://www.bbc.co.uk/weather/weatherwise/factfiles/>

This activity should be continued for the duration of the unit of study. The teacher should encourage discussion about weather patterns, where weather comes from, the effects certain weather may have in specific areas e.g. farmland, coastal resort etc..

Using the symbols provided, ask the children to identify their meaning. Then, using a printout or, if possible an online computer network, show the children the weather chart for the Iberian Peninsula for today. Look at each area and elicit descriptions of the weather for each area e.g. *it is overcast on the Valencian coast. It is warm and sunny in the centre of the peninsula etc.*

### ***Development***

Elicit from the children what we are measuring on the weather chart - cloud cover, sunshine, rain, wind speed, temperature, snow etc. Now, working in pairs or individually, the children should use the symbol sheet to simulate today's weather for the Iberian Peninsula. The children should write a short paragraph in English, describing today's weather, similar to the sentences given in the introduction. This could be glued into their books.

### **Plenary**

Using the map of the British Isles, provide the children with information about the weather in Britain, invite them to come out and stick the symbols on the map and encourage them to give a descriptive sentence about what the weather is like e.g. It is raining in the West of Scotland.

### **Suggestion**

This activity would lend itself to correspondence with your link school in the UK. Children could write or e-mail to find out what the weather and climate are like in that area of the UK.

**Hands on activity 2**  
**Climate and Climate Graphs**  
**Madrid**

**Main Objectives:**

1. To convert information from climate tables (rainfall and temperature) into a climate graph;
2. To differentiate between weather and climate
3. To use climate graphs and tables to describe the climate of Madrid.

**Introduction:**

Elicit from the children the different kinds of weather we can measure. Explain that in this activity we are going to look at two weather phenomenon, rainfall and temperature, and that by measuring these over the period of a year, we can determine the type of climate a region has. Emphasise that weather is always changing, but climate measures weather patterns for a particular area, which generally stay constant.

**Development**

Give out the worksheet - Madrid's Climate. Read through the instructions with the pupils and make sure they understand the task. They should work in pairs interpreting the table. Discuss as a class whether all of the information is relevant for the climate graph. The children should realise that in the temperature section of the table, there are minimum and maximum averages and record temperature. For the graph we want to use the minimum and maximum averages. They should use two different colours for this red and orange, for example.

The rainfall should be a continuous line in blue. Emphasise that the scale is written on the line not in the box.

### **Plenary**

Using the newly made climate graphs ask the children to write a few sentences to describe the climate in Madrid:

*"Madrid has hot, dry summers and cold, wet winters."*

*This type of climate is called a **Continental Mediterranean Climate**.*

# Madrid's Climate 1

Name: \_\_\_\_\_

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

Month	Average Sunlight (hours)	Temperature					Relative humidity		Average Rainfall (mm) (ml/m <sup>2</sup> )	Wet Days (+0.25 )
		Average		Record			am	pm		
		Min	Max	Min	Max					
Jan	5	2	9	-10	18		86	71	390	8
Feb	6	2	11	-9	22		83	62	340	7
March	6	5	15	-4	26		80	56	430	10
April	8	7	18	-1	29		74	49	480	9
May	9	10	21	1	33		72	49	470	10
June	11	15	27	6	37		66	41	270	5
July	12	17	31	8	39		58	33	110	2
Aug	11	17	30	7	38		62	35	150	3
Sept	9	14	25	4	36		72	46	320	6
Oct	6	10	19	0	28		81	58	530	8
Nov	5	5	13	-3	22		84	65	470	9
Dec	5	2	9	-8	16		86	70	480	10

Answer these questions using the table:

1. What is the minimum average temperature in May? \_\_\_\_\_

2. What is the maximum average temperature in December?

\_\_\_\_\_

3. Which month has the most rainfall?

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4. Which months have a maximum average temperature of  $30^{\circ}\text{C}$ ?

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5. Which month has the least number of wet days?

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6. Which Months have the lowest average temperature?

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7. Write three questions of your own and swap with a friend.

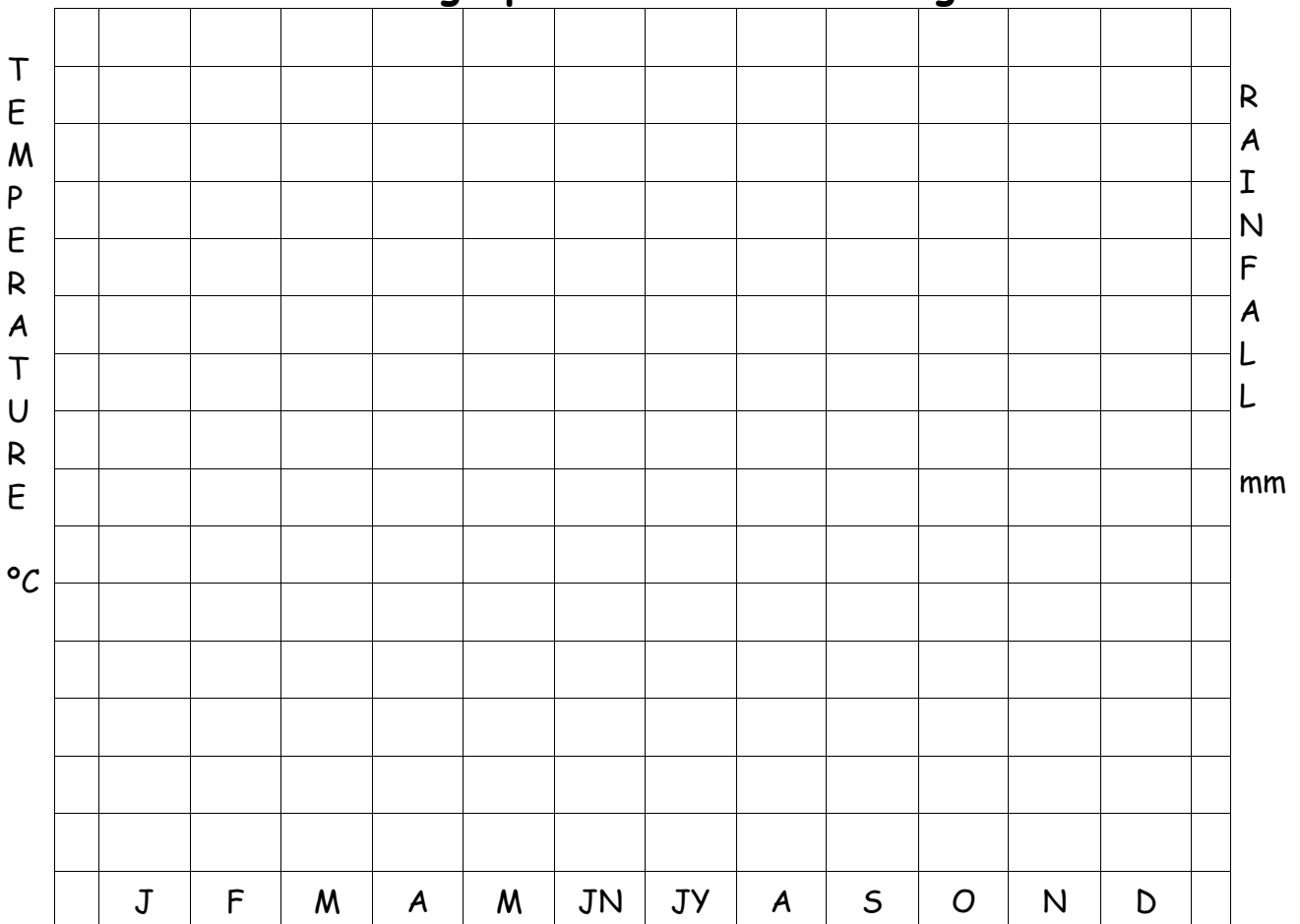
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## Madrid's Climate 2

Transfer the information in the table onto the graph below. The left hand scale is for temperature, we use a line graph to record temperature because the information is always changing. This is called continuous data. The right hand scale is for rainfall.

Because it doesn't rain every day, the information is discontinuous, so we use a bar graph. Plot the graph out and ask a friend to check it for you. Not all of the information on the graph is relevant. Discuss with a friend.

**Climate graph for the Madrid Region**



(Each box equals 5°C and 5mm of rainfall. Write the correct scale on the graph. Remember the number goes on the line, not in the box.)

## **Hands on activity 3**

### **Climate and Climate Graphs**

#### **Spain**

#### **Main Objectives:**

1. To convert information from climate tables (rainfall and temperature) into a climate graph;
2. To differentiate between weather and climate
3. To use climate graphs and tables to describe the climate of Spain

#### **Introduction:**

Recap on the skills and knowledge learned in the previous activity. Look again and ask a few questions about how the children went about converting the table into a graph. Explain that they will be doing the same with temperature and rainfall tables for different cities in Spain. The children should work in pairs or groups, each child producing his or her own graph and writing sentence to describe the climate there.

#### **Development**

Give out the source sheet and allocate a city to each pair. The activity should be done on squared paper. The children should attempt to draw their own graphed modelled on the one from the previous lesson. Once the children have completed the climate graph and written the sentences, explain how we describe each in Spain.



There are five main climates in Spain:

**Atlantic Climate of Northern Spain - Galicia, Cantabria, País Vasco etc.**

Average temperatures here are 9°C in winter and 18°C in the summer. The wettest part of the peninsula with annual rainfall between 800 - 1500mm (800 - 1500 ml/m<sup>2</sup>), brought by successive depressions from the Atlantic, particularly in autumn and winter. Summers are cooler and wetter here than in the rest of Spain.

**Continental-Mediterranean Climate - Madrid, Castilla-La Mancha, Extremadura, Castilla-y-León**

The interior central plateau (mesetas). Low temperatures in the winter, with temperatures under -15°C not uncommon, and under -20°C regularly occurring. High temperatures in the Summer with an average of about 24°C. Dry climate with annual rainfall under 400mm (400 ml/m<sup>2</sup>). Heavy snowfalls in winter.

**Mediterranean Climate proper - Cataluña, Valencia, Murcia, Andalucía, Islas Baleares.**

Eastern and southern coast and much of the Gaudalquivir Valley. Average temperatures of 11°C in winter and 23°C in summer. Annual rainfall 250mm and 600mm (250 - 600 ml/m<sup>2</sup>), respectively. Warm and dry during most of the year.

## **Alpine or Mountain climate - The Picos de Europa, Pyrenees, Sierra Nevada.**

This refers to high mountain climates, that is, above the tree-line. Low temperatures and permanent snow characterises this climate.

## **Subtropical climate Canary Islands**

The average winter temperature above 14°C, summer around 22°C. Varied rainfall figures. Eastern islands are drier than western islands.

## **Source Sheet for Practical Activity Spain's Climate**



Climate map of Spain

## **Plenary**

Display the children's responses on a large map of Spain, including the Canary Is..

### **Average temperatures in La Coruña (°C)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

A Coruña 9 9 11 12 14 18 18 19 17 14 10 8

### **Average rainfall in La Coruña (mm)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

A Coruña 122 84 107 79 74 38 30 38 40 190 149 123

### **Average temperatures in Sevilla (°C)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Sevilla 11 12 15 17 20 25 26 27 23 19 14 11

### **Average rainfall in Sevilla (mm)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Sevilla 71 51 70 31 16 0 0 1 24 67 81 75

### **Average temperature in Murcia (°C)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Murcia 11 11 15 17 20 25 27 28 24 20 14 11

### **Average rainfall in Murcia (mm)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Murcia 18 24 22 44 29 9 0 7 21 24 38 45

### **Average Temperature in San Sebastián (°C)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

San  
Sebastian 10 9 12 13 14 17 18 20 17 16 12 9

### **Average Rainfall in San Sebastián (mm)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

San  
Sebastian 84 26 85 48 41 22 27 23 28 97 57 43

### **Average temperatures in Las Palmas (°C)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Las Palmas 15 15 16 17 18 20 21 23 22 21 18 16

### **Average rainfall in Las Palmas (mm)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Las Palmas 64 67 27 34 12 3 4 6 4 35 89 80

### **Average temperatures in Mahón (°C)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Mahon 11 10 13 14 17 23 25 26 22 20 15 12

### **Average rainfall in Mahón (mm)**

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Mahon 49 75 31 38 52 6 8 24 63 35 154 61