

UNIT 3: THE ATMOSPHERE**THE WEATHER**

Dear language assistant,

1. We are continuing talking about weather. You can revise what the students learnt last week asking: What's the weather like? Remind them we have to talk about temperature, precipitation, state of the sky and wind.
2. After that we can complete this chart about weather elements and instruments (Activity Book page 37, exercise 21). You can repeat, once more, the words you use for temperature (hot, warm, temperate, cool, cold, freezing), for atmospheric pressure (high, low), for humidity (humid, dry, clammy), for precipitation (rain, snow, hail)...

Elements	Instruments	How to express it (units)
Temperature	Thermometer	°C=degrees Celsius
Atmospheric pressure	Barometer	Milibars
Humidity	Higrometer	% percent
Precipitations or rainfall	Rain gauge	L/m ² =Litres per square metre
Wind speed	Wind gauge	Km/h= kilometres per hour
Wind direction	Vane	From the North, South, East, West
State of the sky	Our eyes	Clear, cloudy, overcast

3. Then we can look at a weather chart that includes the data of fifteen days. We can check if the students understand it using the questions below. Each question for a different student. You can read the question and ask a student to repeat it and to say the answer. I prefer you to choose the students, specially those who are never volunteers. Questions 22-38 are easy, but questions 39-42 are more difficult and I will explain later on.

4. If there is some time left the students can work on questions 43-46 and 48 (to do exercise 48 they need to read the previous text).

Thank you

Day	Highest temperature (°C)	Lowest temperature (°C)	Humidity (%)	Atmospheric pressure (mb)	Precipitation (l/m ²)	Wind direction	State of the sky
1	19	3	60	1004		N	Clear
2	16	10	80	996	6	W	Overcast
3	15	9	80	998	10	W	Overcast
4	15	10	80	998	12	W	Overcast
5	16	7	70	1005		N	Cloudy
6	18	7	60	1005		N	Cloudy
7	18	4	60	1008		N	Clear
8	14	3	60	1012		N	Clear
9	19	2	50	1014		N	Clear
10	18	3	50	1016		N	Clear
11	16	5	60	1006		N	Cloudy
12	16	6	60	1004		N	Cloudy
13	17	5	70	1004		W	Cloudy
14	16	4	70	1002		W	Cloudy
15	18	6	80	1002		W	Cloudy

22. What was the highest temperature on the eleventh day? **16°C**
23. What was the humidity on the 14th? **70%**
24. What was the atmospheric pressure on the second day? **996 milibars**
25. How much does it rain on the third day? **10 l/m²**
26. Where was the wind from on the 12th? **From the North**
27. What was the sky like on the 4th? **Overcast**
28. Which was the coldest day? **The 9th**
29. Which was the warmest day? **The first and the ninth.**
30. What's the highest temperature? **19°C**
31. Which was the driest day? **The ninth and the tenth**
32. Which was the most humid day? **2nd, 3rd, 4th, 15th**
33. Which was the day with the highest atmospheric pressure? **The tenth**
34. And the lowest? **The second**
35. How many days did it rain? **Three days.**
36. How much did it rain considering the whole period? **28 litres**
37. Where did most of the winds come from? **From the North**
38. How many days has the sky been cloudy? **Seven days.**
39. Can you see any relationship between humidity and atmospheric pressure?
Yes, I can. When the atmospheric pressure is high (9th, 10th), the humidity is high too.
40. Can you see any relationship between atmospheric pressure and precipitations?
Yes, I can. When the atmospheric pressure is low (2nd, 3rd, 4th) there are precipitations.
41. Can you see any relationship between atmospheric pressure and clear sky?
There are clear skies when the atmospheric pressure is high.
42. Now you can understand why atmospheric pressure is very important for a weather forecast. If the pressure today is higher than it was yesterday, will the weather be better or worse? **Better**

4.1. Precipitation or rainfall.

Precipitation can be measured using a rain gage (pluviometer). It occurs when water falls from the atmosphere to the Earth's surface. There is some water suspended in the atmosphere forming clouds. Clouds are an accumulation of small droplets of very cold water, tiny ice crystals and water vapour. We can distinguish three types of precipitation:

- Rain. It's the falling of drops of water from the clouds to the Earth's surface. Several drops of water stick together and form larger drops of water which are too heavy to stay suspended and so fall to the ground.
- Snow. It's made up of spongy, white ice crystals called flakes. It snows when the temperature is very low.
- Hail. Hailstones are balls of compact ice.

43. Relate using arrows:

- | | | |
|----------------|---|-----------|
| • Flakes | → | Hailstone |
| • Balls of Ice | → | Rain |
| • Liquid water | → | Snow |

44. Which type of precipitation is more dangerous for agriculture? **Hail**

45. Which type is the most usual in Ubrique? **Rain**

46. Which type is the most common at the top of the mountains? **Snow**

47. Las precipitaciones pueden expresarse en litros por metro cuadrado. Imagina un recipiente prismático cuya base es un cuadrado de 1 m^2 de superficie. ¿Cuánto subiría el agua dentro de ese recipiente si ha llovido 13 l/m^2 ?

4.2. Different types of clouds

Diferenciaremos cuatro tipos de nubes: cúmulos, estratos, cirros y nimbos. Diferenciaremos unos de otros por su forma, su color, su altura y la posibilidad de que provoquen lluvias:

- Cumulus look like cotton. It doesn't usually rain when these clouds are about.
- Stratus are low and grey clouds which cover most of the sky. They can cause rain.
- Cirrus are long, white clouds which are formed in the highest layers (even above 9,000 metres), so they are normally made up of crystals or needles of ice. They don't cause precipitations.
- Nimbus are very dark clouds which are located in the lower layers of the atmosphere. They cause rain or snow. Storm clouds are nimbus.

48. Draw the four types of clouds:



