

Weather and Climate

Weather instruments, weather and climate, rainfall types, climate data and the UK's climate.

Name _____ Date _____ Class _____

Learning objective: I can describe and explain weather and climate, and interpret climate data.

✓ I can match weather instruments ✓ I can explain types of rainfall ✓ I can interpret climate data

1 Weather instruments Match each instrument to what it measures.

1 thermometer	☐	A precipitation
2 rain gauge	☐	B wind speed
3 anemometer	☐	C temperature
4 wind vane	☐	D air pressure
5 barometer	☐	E wind direction

2 Weather or climate? Tick **weather** for short-term conditions or **climate** for the average over a long period.

	WEATHER	CLIMATE
1 It is raining in Cardiff today.	☐	☐
2 The UK has mild, wet winters.	☐	☐
3 The Sahara is hot and dry all year.	☐	☐
4 A storm will reach Scotland tomorrow.	☐	☐

3 Types of rainfall Match each type to how it forms.

1 relief rainfall	☐	A the ground heats the air, which rises quickly, cools and forms storm clouds
2 convectional rainfall	☐	B warm air meets cold air and is forced to rise over it
3 frontal rainfall	☐	C moist air is forced to rise over mountains, cools and condenses

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4 Climate data This table shows average climate data for a town in western Britain.

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temp (°C)	5	5	7	9	12	15	17	17	15	12	8	6
Rain (mm)	80	60	55	50	50	50	55	60	65	85	90	85

5 Read the table

1 Which months are warmest?

2 Calculate the annual temperature range.

3 Calculate the total annual rainfall.

4 Which season is wettest?

5 Describe the climate of this town in one or two sentences, using figures.

6 Explain it

1 Explain why western Britain gets more rain than eastern Britain. [3 marks]

2 Give **two** reasons why the UK has milder winters than places at the same latitude in Canada. [2 marks]

Answer Key

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Question	Answers
1 Weather instruments	1 C; 2 A; 3 B; 4 E; 5 D
2 Weather or climate?	1 Weather ; 2 Climate ; 3 Climate ; 4 Weather
3 Types of rainfall	1 C; 2 A; 3 B
5 Read the table	1. July and August (17 °C) 2. $17 - 5 = 12$ °C 3. 785 mm 4. autumn and winter (October to December are wettest) 5. Mild winters (about 5 °C) and cool summers (about 17 °C); rain all year, about 785 mm, wettest in autumn and winter.
6 Explain it	1. The prevailing south-westerly winds bring moist air from the Atlantic; it is forced to rise over the western uplands (relief rainfall), so the east is in a rain shadow. 2. The North Atlantic Drift (warm ocean current) warms the UK; the sea keeps temperatures mild (maritime climate); westerly winds blow from the warm sea.

Teaching note: the climate figures are typical values for practice, not official data for a named place. Calculations in the key use the table.