Climate Zones Worksheet

Grade 6 – 7 geography · climate and adaptation

Name: Date: Score: / 26

Same sun, different angle

Climate is the pattern of weather a place has over many years. The single biggest thing controlling it is **latitude** — how far that place is from the equator.

Sunlight arriving at the equator comes almost straight down, so its energy lands on a small patch of ground. The same beam reaching a polar region strikes at a shallow angle and spreads across a much larger area, so every square metre receives far less. Nothing about the sun has changed; only the angle has.

Three other controls then adjust the picture. **Altitude** lowers temperature, which is why snow sits on mountains at the equator. Distance from the sea evens out the extremes, because water heats and cools slowly. And mountains force air upward, so it drops its rain on one side and descends dry on the other, leaving a rain shadow.

Part A — Vocabulary match each term to its meaning (8 marks)

1. Climate	_____	A. Hot all year with heavy rainfall, near the equator
2. Weather	_____	B. Cold all year, with short summers and no trees
3. Tropical	_____	C. Height above sea level, which lowers temperature
4. Arid	_____	D. Mild, with four clear seasons
5. Temperate	_____	E. Very dry, with less than 250 mm of rain a year
6. Polar	_____	F. The average weather of a place over many years
7. Altitude	_____	G. The conditions outside on one particular day
8. Adapt	_____	H. To change how you live to suit the conditions

Part B — Fill in the blanks (8 marks)

1. _____ is what it is like outside today; climate is the pattern over many years.

2. The single biggest control on a place’s climate is its _____.

3. Near the equator sunlight arrives almost _____ down.

4. As altitude increases, temperature _____.

5. A place beside a large ocean has _____ summers and winters than an inland place at the same latitude.

6. A desert is defined by low _____, not by high temperature.

7. The dry side of a mountain range is called a rain _____.

8. Beyond the tree line, the cold treeless zone is called _____.

Part C — How people adapt complete the third column (4 marks)

Zone	Conditions	One way people adapt
Tropical rainforest	Hot and wet all year	
Hot desert	Very dry, hot days and cold nights	
Temperate	Mild with four seasons	
Polar and tundra	Cold all year, frozen ground	

Part D — Apply it (4 marks)

1. Quito sits almost on the equator but is cool all year. Explain why, using one of the four controls above.

2. Two cities share a latitude. One is on a coast, the other far inland. Which has the colder winter, and why?

Part E — Think it through (2 marks)

1. Antarctica is counted as a desert. Explain how that can be true of the coldest place on Earth.

Climate Zones Worksheet — Answer Key

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Part A — Vocabulary

1. **Climate** → F
2. **Weather** → G
3. **Tropical** → A
4. **Arid** → E
5. **Temperate** → D
6. **Polar** → B
7. **Altitude** → C
8. **Adapt** → H

Part B — Fill in the blanks

1. **Weather**
2. **latitude**
3. **straight**
4. **decreases**
5. **milder**
6. **rainfall**
7. **shadow**
8. **tundra**

Part C — How people adapt

> **Accept any sensible adaptation.** These are examples, not the only answers.

1. **Tropical rainforest** — Houses raised on stilts; steep roofs to shed heavy rain
2. **Hot desert** — Thick walls, small windows, light-coloured clothing
3. **Temperate** — Insulated homes, heating for winter, mixed farming
4. **Polar and tundra** — Buildings raised off the permafrost, layered clothing

Part D — Apply it

1. **Altitude.**
   Quito is about 2,850 m above sea level. Air thins with height and holds heat less well, so the city stays cool despite sitting on the equator.
2. **The inland city.**
   Water heats and cools slowly, so a coast is warmed by the sea in winter. Inland there is nothing to moderate the temperature and the extremes are wider.

Part E — Think it through

1. **A desert is defined by how little precipitation it receives, not by temperature.**
   Much of Antarctica gets under 50 mm a year, far below the 250 mm threshold. Cold air holds very little moisture, so there is almost nothing to fall.