Plants Across Climates

Read how location and climate shape natural vegetation.

4.C.2.2.B "Describe the location of major climate zones (tropical, temperate, continental, polar) explaining how climate affects natural vegetation."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline where each climate zone is found, circle a temperature or rain clue for each zone, and draw a box around one kind of plant that can grow there. Use your marks to connect each zone's location, climate, and plants.

A Trip Through Climate Zones

1. Imagine walking north from the equator. Near the equator, the tropical zone stays warm all year. In many tropical places, frequent rain helps tall trees grow close together. Where rain is scarce, grasses may grow instead. Farther from the equator, at many middle-latitude coasts, lies the temperate zone. Its seasons change, but temperatures are usually less extreme than in places closer to the poles.

2. A rainy coast in the temperate zone may have forests of leafy trees. Some of these trees lose their leaves during cool seasons. Farther inland at middle latitudes, the continental zone has warmer summers and colder winters because the ocean is too distant to soften the temperature. In drier parts, grasses spread across open land. Where enough rain falls, forests can grow.

3. Keep traveling toward either pole and you reach the polar zone. Long, cold winters and short, cool summers make it hard for tall trees to survive. Low plants, such as mosses and small shrubs, grow in some polar areas. Ice covers other places where almost nothing grows. The same trip shows a pattern: a zone's location shapes its temperature and rain, and those conditions help decide which plants can live there.

2 ANSWER WITH EVIDENCE

Use the passage

1. Where is the tropical zone? How do warmth and rain affect the plants in many tropical places?

2. Where might you find a temperate forest of leafy trees? What climate conditions help it grow?

3. Where is the continental zone? What plants may grow in its drier parts?

4. Where is the polar zone? Why are tall trees rare there?

3 YOUR TURN

Your own words

Two parks are at similar middle latitudes. One is on a rainy coast, and the other is dry and far inland. In four sentences, name each park's likely climate zone, predict its natural plants, and explain how the climates cause the difference.

ANSWER KEY

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GRADE 4 · 4.C.2.2.B

PART 1 · READ AND MARK

Underline where each climate zone is found, circle a temperature or rain clue for each zone, and draw a box around one kind of plant that can grow there. Use your marks to connect each zone's location, climate, and plants. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Where is the tropical zone? How do warmth and rain affect the plants in many tropical places?	**The tropical zone is near the equator. Year-round warmth and frequent rain help tall trees grow close together.**
2	Where might you find a temperate forest of leafy trees? What climate conditions help it grow?	**It may grow on a rainy coast at a middle latitude. Rain supports the forest, and the seasons change without temperatures being as extreme as those nearer the poles.**
3	Where is the continental zone? What plants may grow in its drier parts?	**The continental zone lies farther inland at middle latitudes. Grasses may spread across its drier parts.**
4	Where is the polar zone? Why are tall trees rare there?	**The polar zone is near either pole. Its long, cold winters and short, cool summers make it hard for tall trees to survive.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The rainy coastal park likely has a temperate climate and leafy forests. Rain helps its trees grow. The dry park far inland likely has a continental climate, with warmer summers and colder winters. Because it gets little rain, grasses may grow there instead of a thick forest.

Accept other accurate plant predictions when students explain how the stated rainfall and climate support them. A continental park may also have trees if a student explains that enough rain falls there, but the prompt specifies that this park is dry.