

# CLIMATE AND WEATHER

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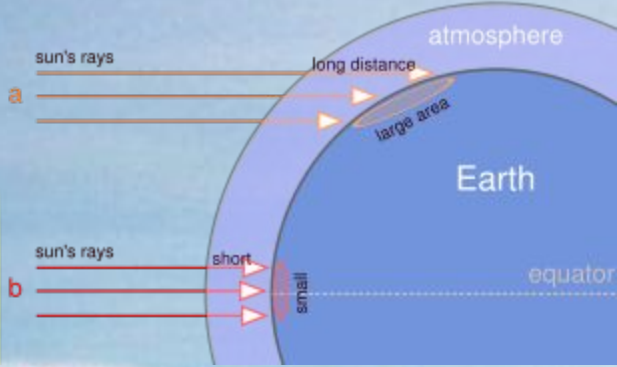
# Polar Regions

- Regions with a **polar climate** are characterized by a lack of warm summers. No month has an average temperature of 10 °C or higher.
- The tundra covers over 20% of the earth. The sun shines 24 hours in the summer, and barely ever shines at all in the winter.



Polar climate results in treeless tundra, glaciers, or a permanent or semi-permanent layer of ice.





- Solar radiation has a lower intensity in polar regions because it travels a longer distance through the atmosphere, and is spread across a larger surface area.



# Temperate climate




In geography, temperate latitudes of the globe lie between the tropics and the polar circles. The changes in these regions between summer and winter are generally subtle, warm or cool, rather than extreme, burning hot or freezing cold. However, a temperate climate can have very unpredictable weather.



Within these borders there are many climate types, which are generally grouped into six categories: oceanic, mediterranean, humid subtropical, continental, arid and semi-arid.



A photograph of a dense forest. The background is filled with tall, dark green evergreen trees reaching towards a clear blue sky. In the foreground, there is a field of vibrant pink flowers, possibly columbines, with green foliage. The lighting is bright, suggesting a sunny day.

The cool temperate type of climate has rain all year with less extremes of heat or cold.

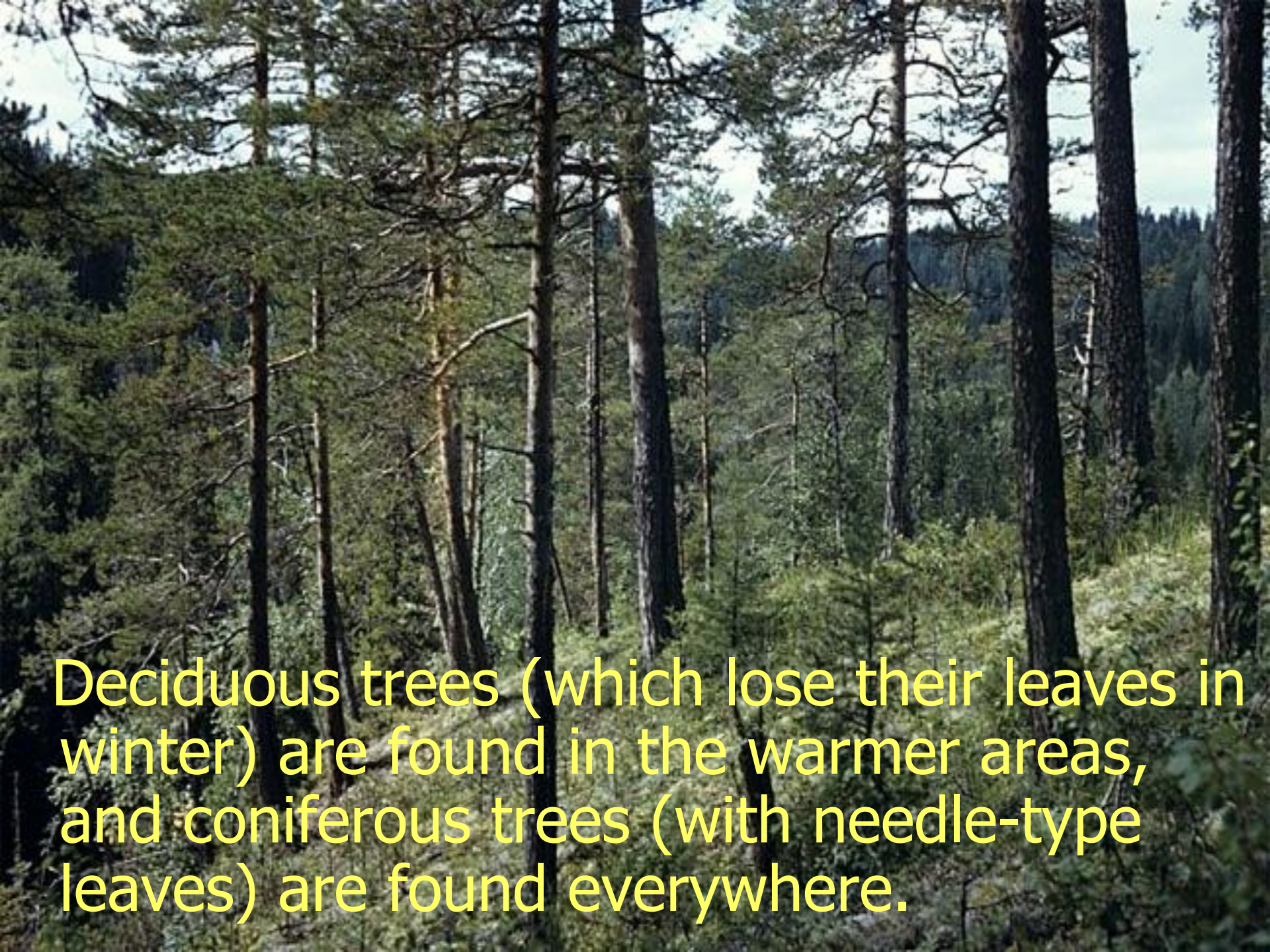


# Cool temperate climate

This climate is found in much of northwest Europe, New Zealand and coastal North America.








Deciduous trees (which lose their leaves in winter) are found in the warmer areas, and coniferous trees (with needle-type leaves) are found everywhere.



A photograph of a lush green forest. The trees are tall and thin, with dense foliage in various shades of green. The sky is visible through the canopy, appearing as a clear, bright blue. The overall scene is bright and vibrant, suggesting a healthy, mature forest.

Changeable weather is characteristic of these areas and they are strongly influenced by large moving weather systems called depressions or 'lows', and anticyclones or 'highs'.





**In subtropical climates the winters are relatively warm, but not as hot as the summer season. These climates rarely—if ever—see frost or snow, and you can adore plants such as palm, citrus and many broadleaf evergreens flourish.**



# TROPICAL

A tropical climate is a type of climate typical in the tropics. Climate classification defines it as a non-arid climate in which all twelve months have mean temperatures above  $18^{\circ}\text{C}$  ( $64.4^{\circ}\text{F}$ ).



# Geographic Distribution



- **Coastal areas of southwest India, Sri Lanka, Bangladesh, Mynamar (Burma), Southwestern Africa, French Guiana, northeast and southeast Brazil.**





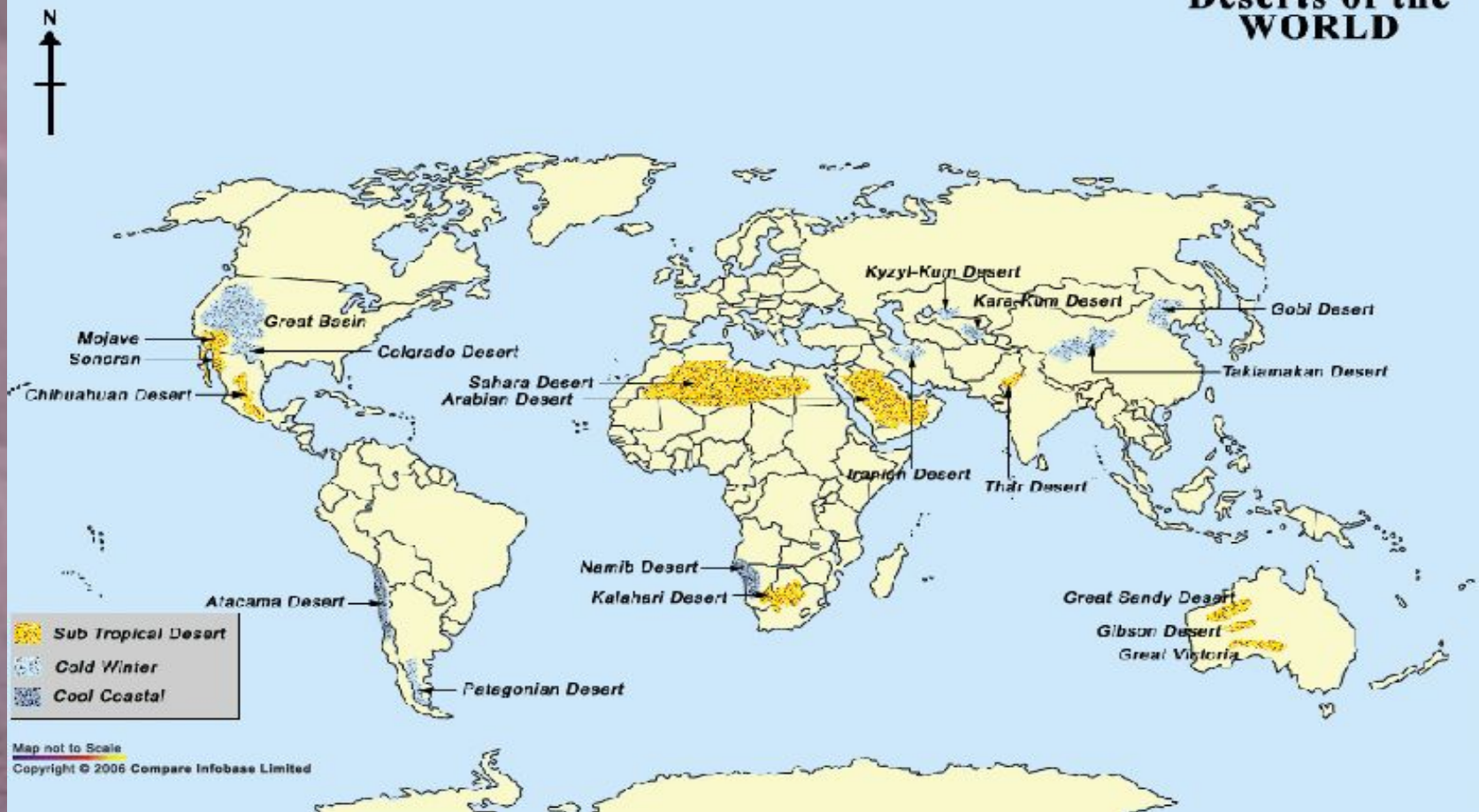






# DESERTS

## Deserts of the WORLD





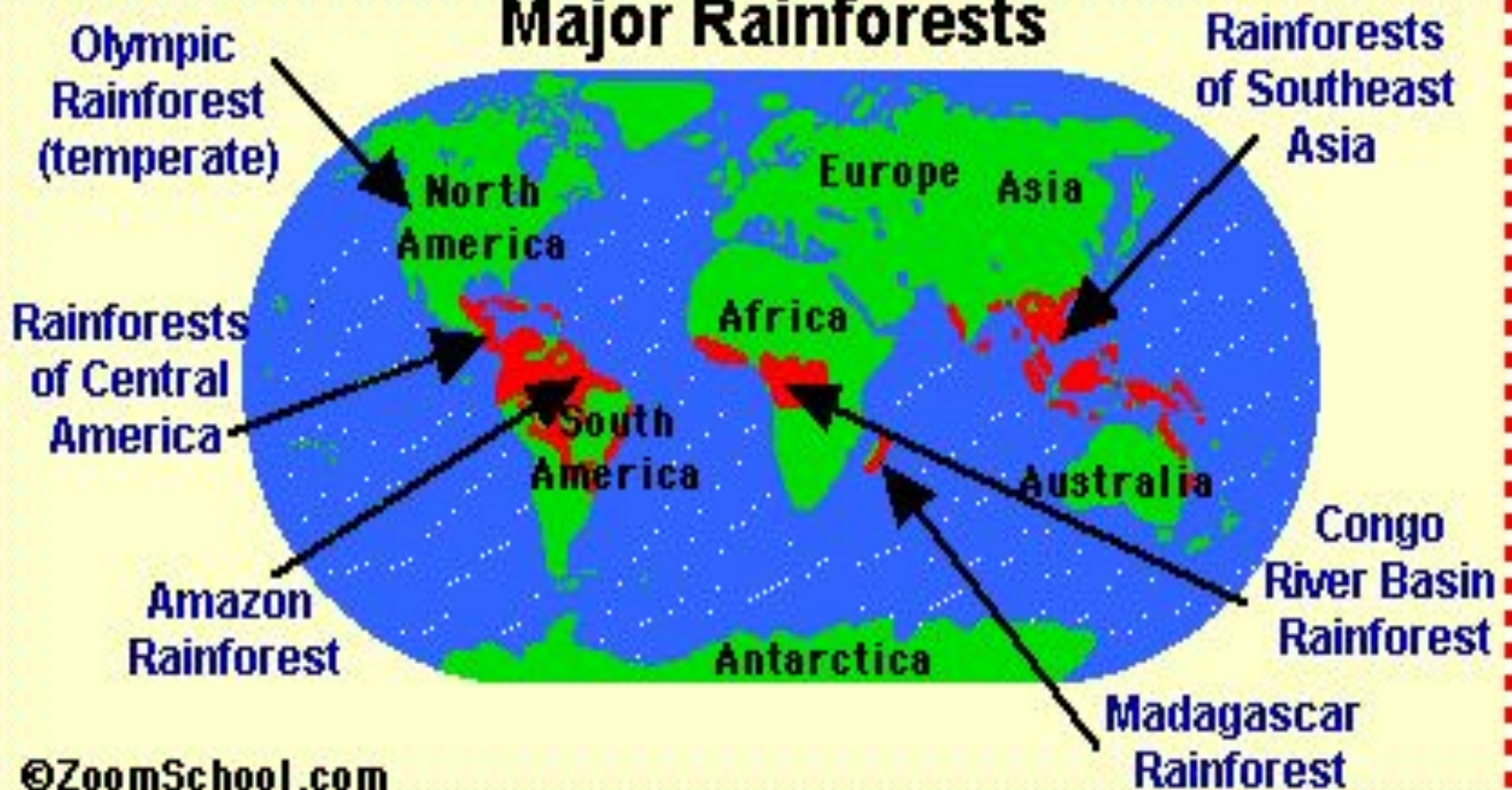


**A desert is a landscape or region that receives an extremely low amount of precipitation, less than enough to support growth of most plants. Deserts are defined as areas with an average annual precipitation of less than 250 millimetres per year.**



# RAINFORESTS

## Major Rainforests







**Rainforests are forests characterized by high rainfall. The monsoon trough, alternately known as the intertropical convergence zone, plays a significant role in creating Earth's tropical rain forests.**



**The largest tropical rainforests exist in the Amazon Basin, in Nicaragua, the southern Yucatán Peninsula, in much of equatorial Africa, in much of southeastern Asia, northern and eastern Australia.**









# MOUNTAINS



Mountains cover 54% of Asia, 36% of North America, 25% of Europe, 22% of South America, 17% of Australia, and 3% of Africa. As a whole, 24% of the Earth's land mass is mountainous.



# The highest mountains of each continent (the Seven Summits):



Mountain Peak	Continent	Height
• <a href="#"><u>Mount Everest</u></a>	Asia	8,850 m
• <a href="#"><u>Aconcagua</u></a>	South America	6,959 m
• <a href="#"><u>Mount McKinley</u></a>	North America	6,194 m
• <a href="#"><u>Kilimanjaro</u></a>	Africa	5,895 m
• <a href="#"><u>Mount Elbrus</u></a>	Europe	5,642 m
• <a href="#"><u>Vinson Massif</u></a>	Antarctica	4,897 m
• <a href="#"><u>Mount Kosciuszko</u></a>	Australia – Oceania	4,884 m







