

# Climate Activities

# Climate Zones

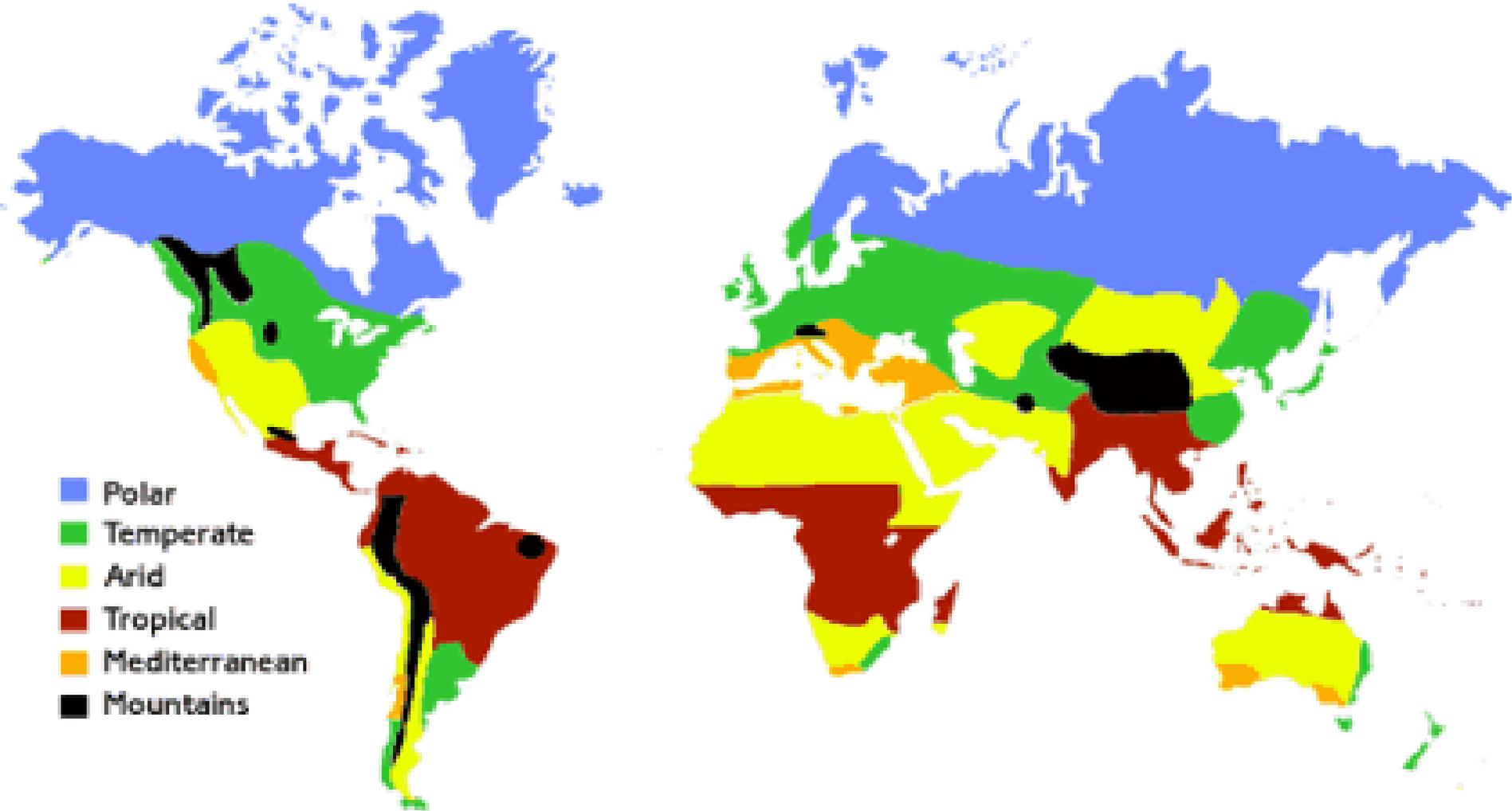
Polar

Temperate

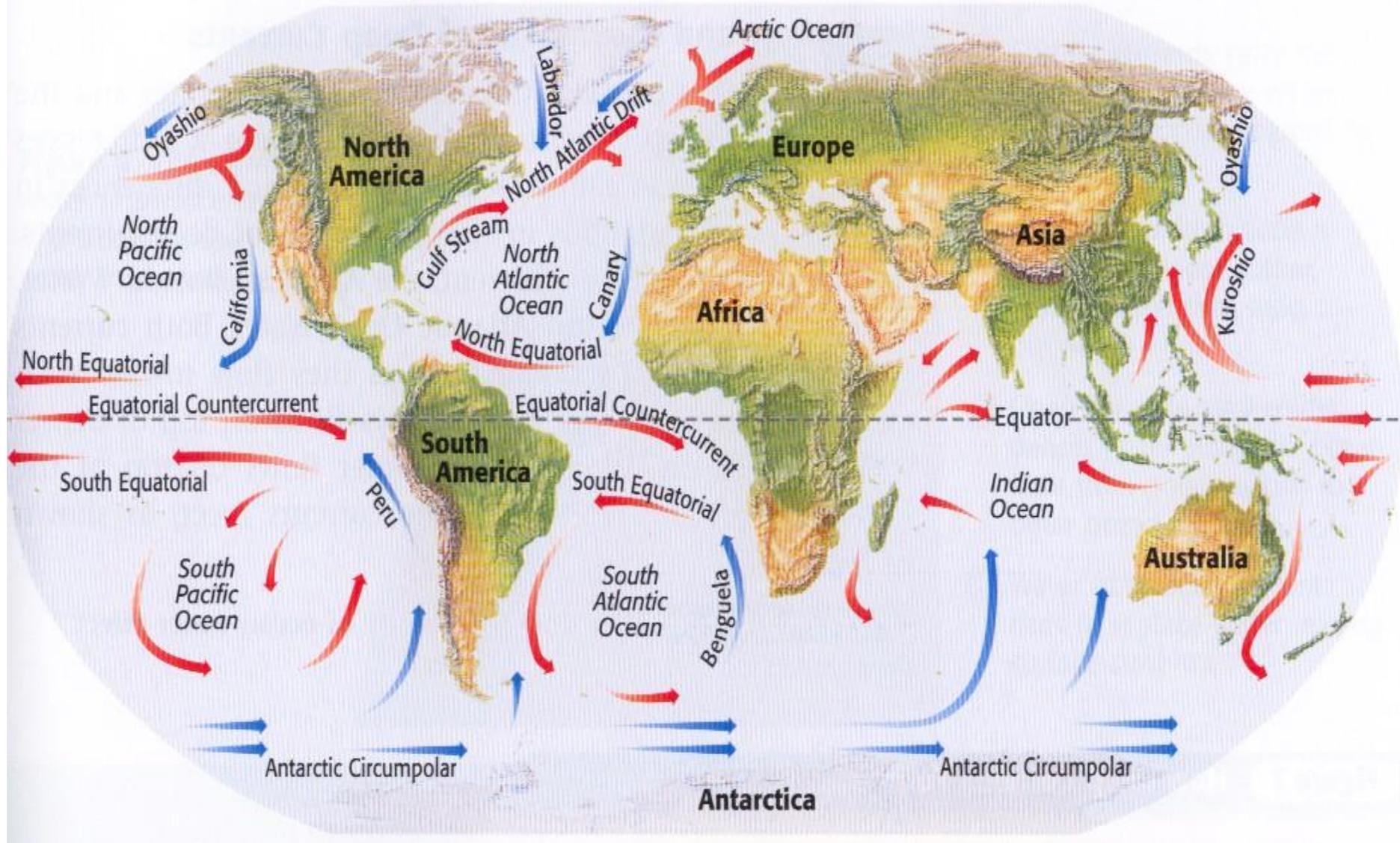
Desert (Arid)

Tropical

- Polar
- Temperate
- Arid
- Tropical
- Mediterranean
- Mountains



# Global Ocean Currents



# Tropical

- The climate at the equator is known as the tropical zone. Most regions along the equator have very hot and humid climates. Rainfall can be excessive and at certain times of the year thunderstorms can occur on a daily basis. Annual rainfall is normally in excess of 2000mm with heavy showers on most afternoons. This pattern of rainfall is due to wind patterns, which creates ideal conditions (warm, moist, unstable air) for the formation of storm clouds. The temperature usually ranges little from about 26°C - 28°C. During any 'drier' season temperatures can reach 33 °C. At night the cloud cover can act as a blanket keeping temperatures to approximately 22°C. The tropical zone includes the Amazon Basin in Brazil and its famous rainforest, West Africa's Congo Basin and Indonesia.

# Desert (Arid)

- To the north and south of the tropical zone lies the desert/arid zone. In this zone there is not enough rainfall for vegetation to survive. What little rain does fall supports sparse, scrub vegetation. Less than 250mm (10inches) of rain falls each year, and it is possible for a year to pass without any rainfall at all. Areas in the arid zone will have clear skies due to high pressure and stable descending air. Temperatures can often reach a maximum of 40-45°C, though at night can drop to near freezing. The Sahara, Saudi Arabia, large parts of Iran and Iraq, North West India, California, South Africa and most of Australia.

# Temperate

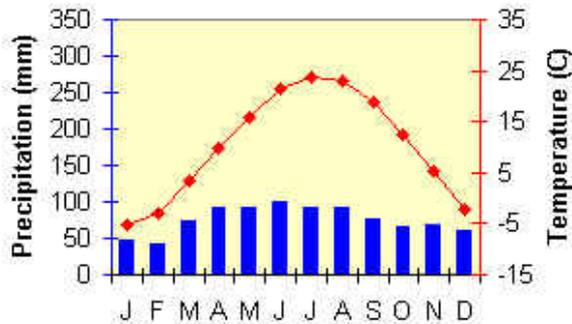
- Temperate Climate includes those countries with small fluctuations in temperature all year round and rainfall that can fall throughout the year. Temperate climate conditions are usually between latitudes of 40° and 60° north and south of the equator and include temperate grasslands and deciduous forests. The United Kingdom is included in this climate zone, in addition to most of Europe, parts of North West and North East America, Eastern Asia and Southern Chile. However, within these regions several different types of weather may occur depending on an area's location in relation to oceans and large landmasses. Temperate zones only cover 7% of the World's land surface, but they are seen by many as the best place to live. With mild temperatures and a good rain supply countries with a temperate climate are home to four-tenths of the world's population.

# Polar

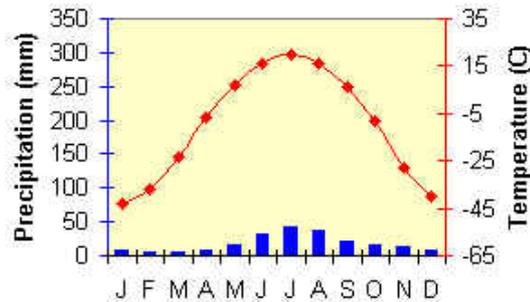
- Polar zones are always covered with snow and ice as the sun is never high enough to allow melting and temperatures hardly ever climb above freezing. A polar climate is extremely cold and dry. Less than 250mm (10inches) of precipitation a year falls in places making some polar regions as dry as the deserts of the world. A minimum temperature of  $-88^{\circ}\text{C}$  has been recorded at Antarctica. The Arctic and Antarctica are obvious regions within the Polar Zone, however other parts of the world are also included. The Arctic actually includes the ice-covered part of the Arctic Ocean, Greenland and much of Northern Canada and Northern Siberia. The Antarctic Continent is covered by ice that can be several kilometers thick.

# Set I: Climate Graphs

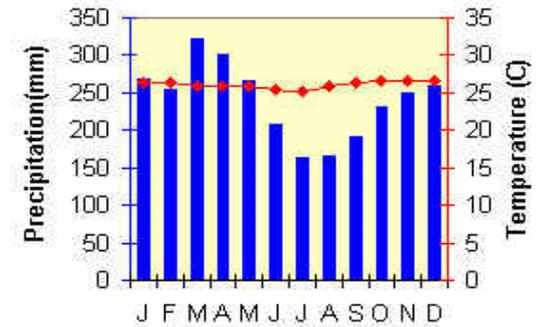
### Chicago, Illinois



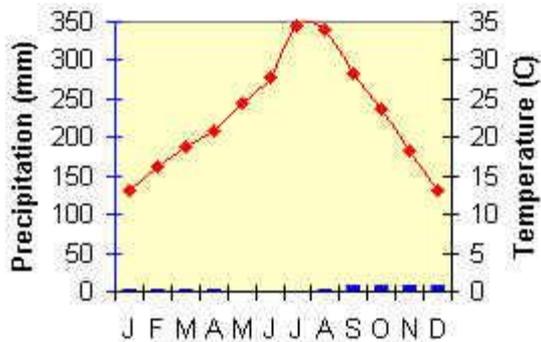
### Yakutsk, Russia



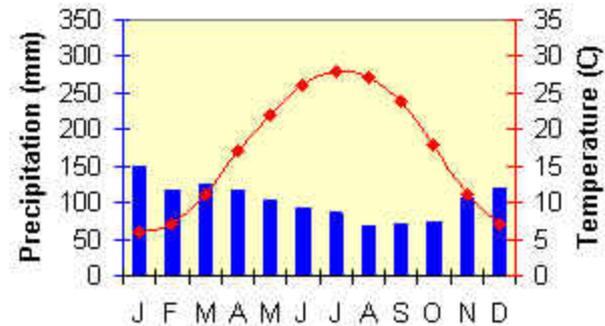
### Iquitos, Peru



### Tindouf, Algeria



### Memphis, TN



# Set II: Climate Graphs

