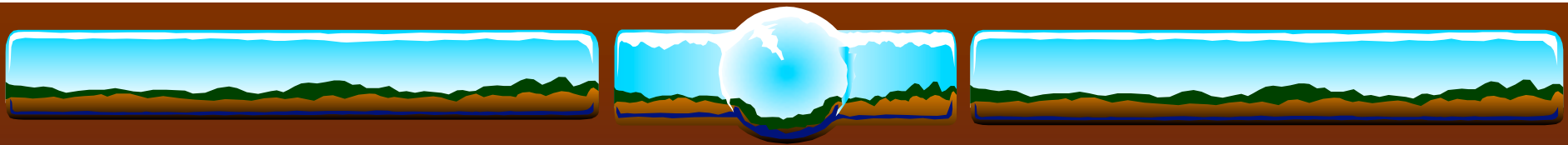


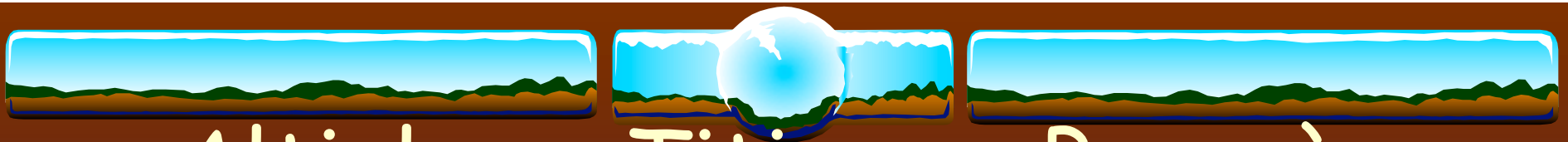
Natural Environments of South America

Chapter 12 Section One



Physical features of South Am.

- ❖ South America includes 12 countries and an overseas department of France- French Guiana
- ❖ Brazil is the largest country in South America
- ❖ South America's great mountain range is called the Andes which extends along the Pacific Coast
- ❖ Mt. Aconcaqua is the highest peak at 22,834 feet
- ❖ The collision of the Nazca and South American plates created the Andes
- ❖ Tectonic activity continues to cause volcanic eruptions and earthquakes



Altiplano, Titicaca, Poopo`

- ❖ In Peru and Bolivia the Andes divide into two great ranges
- ❖ Between the two ranges lies an elevated plain known as the Altiplano- high plateau in Spanish
- ❖ The Altiplano lies at about 12,000 feet
- ❖ More than 25 rivers of the Altiplano drain into Lake Titicaca on the border between Peru and Bolivia.
- ❖ Titicaca is a freshwater lake that is 3,200 square miles
- ❖ Farther south is Lake Poopo` which is a salt lake
- ❖ Few people live on the banks of Lake Poopo`



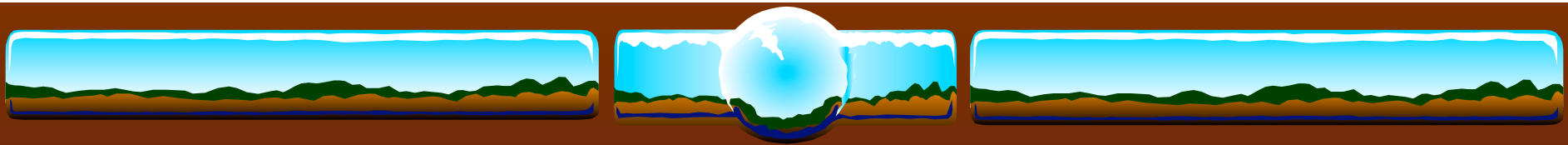
The Highlands/Angel Falls

- ❖ In Eastern South America are a series of eroded highlands
- ❖ The Guiana highlands rise in southern Venezuela and stretch across part of northern Brazil and Guyana, Suriname and French Guiana
- ❖ Erosion on the highlands has left a chain of high plateaus edged by high cliffs called tepui
- ❖ Angel Falls in Venezuela tumbles 3,212 feet from a tepui making it the world's highest water fall.
- ❖ The Brazillian Highlands extend inland along Brazil's southeastern coast



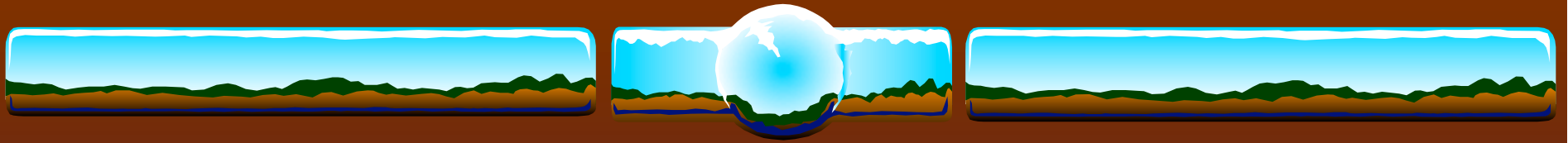
The Plains of South America

- ❖ Plains cover much of South America
- ❖ The largest plain is the Amazon River Basin which occupies about 2 million square miles
- ❖ NE Colombia and Western Venezuela have a large plains area called the Llanos- which means plains in Spanish.
- ❖ Between the Andes and the Brazilian Highlands lies the Gran Chaco - means hunting lands in Spanish-
- ❖ The Gran Chaco is a semi-arid landscape with plains that are so flat that the water sometimes stands for months after the summer rainy season ends.



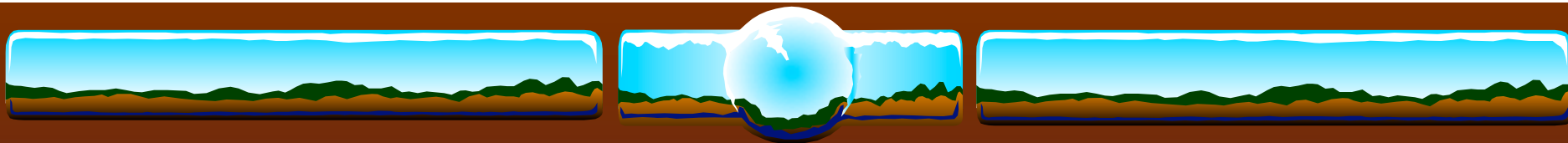
Pampas and Patagonia

- ❖ South of the Gran Chaco are the Pampas- a wide grassland
- ❖ The eastern edge of the Pampas is Argentina's most densely populated area
- ❖ Erosion by both wind and water have carried fertile soil from the Andes to the Pampas
- ❖ South of the Pampas is the semi-arid Patagonia region
- ❖ Tierra del Fuego is at the most southern point of South America it is an island that is divided between Argentina and Chile



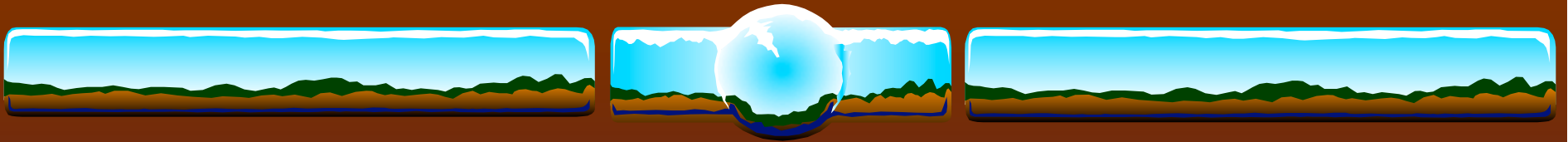
Major Rivers in South America

- ❖ Only small rivers and streams flow west into the Pacific Ocean
- ❖ Three great river systems drain the eastern part of South America; the Amazon, Orinoco and the Parana.



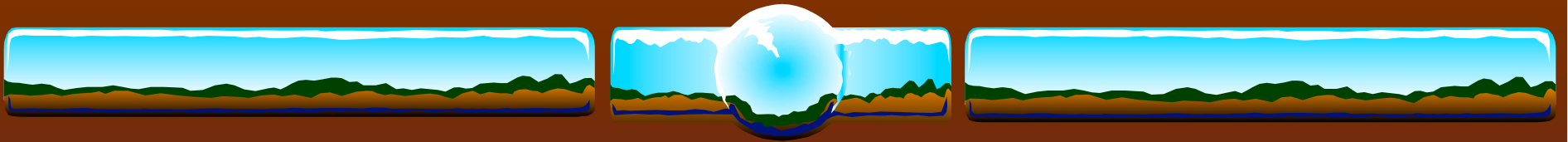
The Amazon

- ❖ The Amazon River is 4000 miles long- it is the world's largest river by volume and drains a larger area than any other river.
- ❖ So much water flows from the Amazon to the Atlantic Ocean that fresh water dilutes the sea water for more than 100 miles from shore.
- ❖ Ocean going ships can navigate the Amazon for nearly 2,300 miles all the way to Iquitos, Peru.



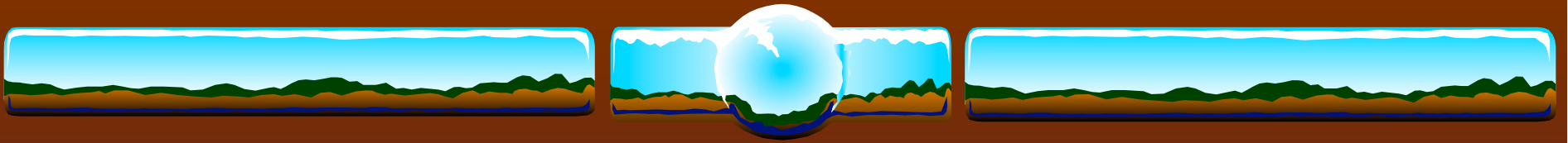
The Orinoco and Parana Rivers

- ❖ The Orinoco river drains the Western Guiana highlands and the Llanos and then empties into the Atlantic Ocean
- ❖ Several rivers together drain another large area to the south.
- ❖ The largest of these rivers is the Parana which flows into the Rio de la Plata estuary system between Argentina and Uruguay
- ❖ The Parana drains an area that includes the eastern slopes of the Andes and the highlands of Eastern Brazil



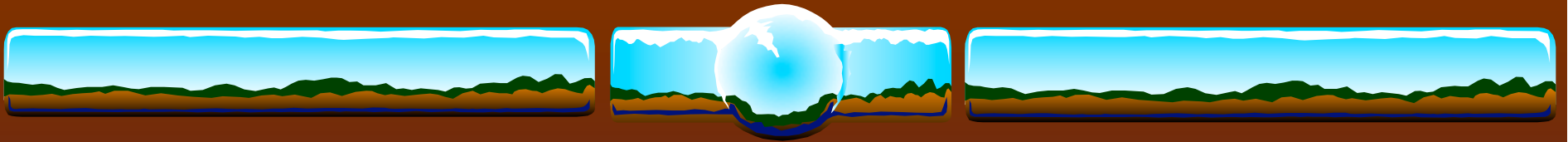
Climate in the Amazon

- ❖ Because South America extends across 60° of latitude the continent has a variety of climate regions
- ❖ The Amazon river basin is the world's largest tropical humid climate region
- ❖ The Amazon Basin also has the largest tropical rainforest in the world.
- ❖ More than 150 inches of rain fall every year
- ❖ Along the western edge of the basin rain forests yield to the highland climates of the Andes.



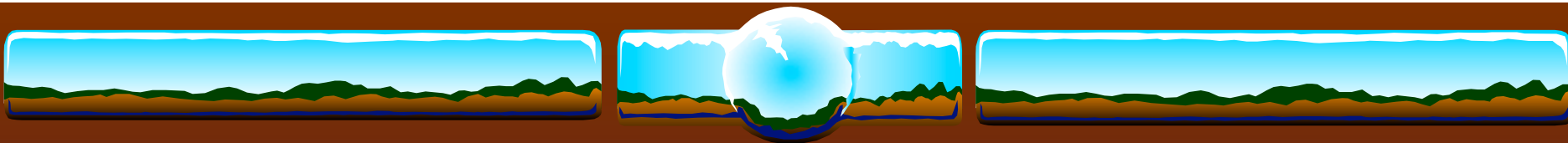
Climate in the Andes

- ❖ Environments of the central and northern Andes regions can be divided into five climate zones according to elevation
- ❖ These zones range from hot and humid lands near sea level to frozen peaks high above the tree line.
- ❖ Tree line- elevation line above which trees do not grow.



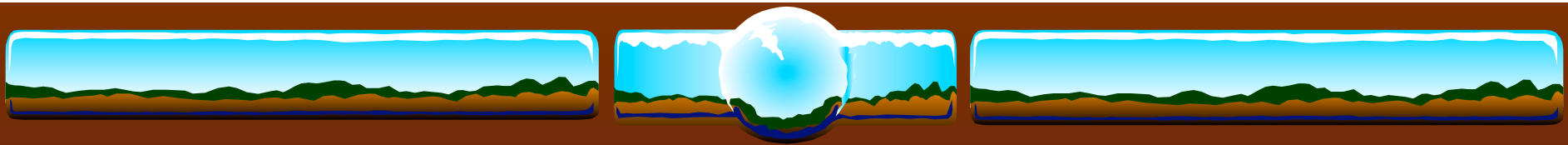
Climate in South America

- ❖ Many areas of South America have tropical wet and dry climates- wet summers and dry winters
- ❖ Natural vegetation includes dry forest or savannas where a mixture of trees and grasses cover the plains.
- ❖ Southern South America has a variety of middle latitude climates
- ❖ Chile's central valley has a Mediterranean Climate with winter rains and summer drought
- ❖ Moist westerlies influence southern Chile which has a Marine West Coast climate
- ❖ Southern Argentina is in the rainshadow of the Andes so the area has a semi-arid to arid climate.



The Atacama Desert

- ❖ The driest region in South America is the Atacama Desert of Northern Chile and Southern Peru
- ❖ A high pressure system and cool ocean currents bring dry weather throughout the year
- ❖ Rain is extremely rare but fog and low clouds are common because the cold Peru current chills warmer air above the surface of the Pacific Ocean
- ❖ Cloud cover near the surface keeps the air near the ground from being warmed by the sun
- ❖ The Atacama desert is one of the driest and also one of the cloudiest places on earth and gets almost no sunshine for six months out of the year
- ❖ People who live near the coast in the Atacama desert increase their water supply by trapping fog-set up plastic nets near the shoreline and fog droplets condense on the nets
- ❖ A village can collect thousands of gallons of clean water per day.



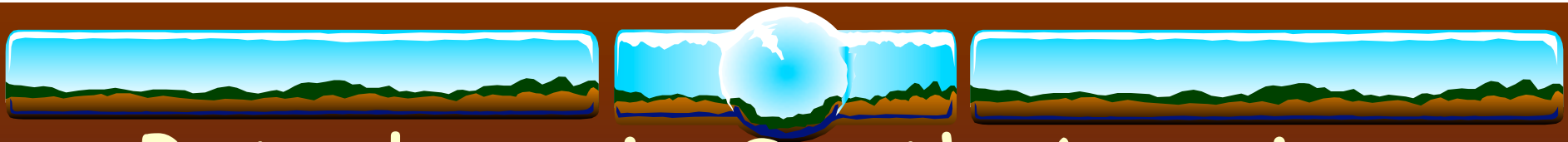
El Nino/La Nina

- ❖ About once or twice a decade the dry Pacific coast is affected by an ocean and weather pattern called El Nino
- ❖ During an El Nino event the eastern Pacific Ocean is warmer and the climate much wetter than normal
- ❖ An alternate weather and ocean pattern is La Nina
- ❖ La Nina happens when the Pacific waters are colder than usual.



Natural Resources

- ❖ South America has rich mineral deposits, fertile soils, and climate suitable for growing a range of crops
- ❖ Many rivers have been dammed to generate electricity and store water for irrigation
- ❖ The rain forests provide rubber and timber and plants that are used for medicine.
- ❖ The mineral wealth that attracted the Spaniards and Portuguese to the region centuries ago is still being developed
- ❖ New gold and silver deposits have been found in Brazil and Colombia
- ❖ Chile is the world's largest producer and exporter of copper
- ❖ Brazil has enormous reserves of iron ore and bauxite
- ❖ Colombia is famous for its emeralds.



Petroleum in South America

- ❖ Several South American countries have petroleum deposits
- ❖ The largest oil reserves are in Venezuela in the vast oil deposits surrounding Lake Maracaibo
- ❖ Oil deposits have been developed in Colombia, the Upper Amazon Basin of Peru, and Ecuador
- ❖ More recent oil discoveries have been made off the coasts of Argentina, Brazil and Chile
- ❖ Venezuela has tar sands- layers of rock or sand that contain oil
- ❖ The oil has to be cooked out of the rocks so production is expensive
- ❖ Tar sands may become important once the easily pumped oil is gone.