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# Louisiana Physical & Cultural Geography

## Unit One

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# Unit One - Description

This unit focuses on how geography has affected the development of Louisiana. It has determined the climate and natural resources available. The utilization of the state's resources and the livelihood of its inhabitants are all affected by geography. Louisiana reflects a multicultural tapestry of cultural heritage, blending the traditions and celebrations of its diverse people.

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# Students Will...

Students understand the knowledge of geography is essential for understanding the development of Louisiana. Students will recognize that the topography, climate and resources of Louisiana have influenced the lifestyle and work habits of its inhabitants. Students will explore the many ethnic groups that have contributed to Louisiana's diverse culture. Students will compare and contrast Louisiana's physical and cultural regions.

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# Guiding Questions

1. Can students use time zones in the United States or the International Date Line to interpret a map or representation of a globe and calculate current times in different places?
  2. Can students locate major landforms and geographic features, places and bodies of water/waterways on a map of Louisiana?
  3. Can students construct a map based on narrative informative?
  4. Can students construct a chart or diagram to display geographical information in an organized way?
  5. Can students describe and analyze the distinguishing physical and/or human characteristics of Louisiana regions?
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# Guiding Questions

6. Can students describe ways in which location and physical features have influenced historical events in Louisiana and the development of the state?
  7. Can students explain how or why specific regions are changing as a result of physical phenomena?
  8. Can students identify and describe factors that cause a Louisiana region to change?
  9. Can students explain ways in which goals, cultures, interests, inventions and technological advances have affected people's perceptions and uses of places or regions in Louisiana?
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# Guiding Questions

10. Can students describe the cause and effects of cultural diffusion and effects of cultural diversity in Louisiana?
  11. Can students describe the contributions of ethnic groups significant in Louisiana history?
  12. Can students explain cultural elements that have shaped Louisiana's state heritage?
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## Pledge of Allegiance to the Louisiana State Flag

I pledge allegiance to the flag of the state of Louisiana and to the motto for which it stands : A state, under God, united in purpose and ideals, confident that justice shall prevail for all of those abiding here.

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# Physical & Cultural Geography

- Geography - the study of places, their locations, and their physical and human characteristics
- Physical Geography - the study of landforms, oceans, weather and climate
- Cultural Geography - the study of how people have interacted with, changed and adapted to different places on the earth.

*Louisiana's physical geography has shaped its cultural geography*

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# Location Information

- Latitude measures a location's distance north or south of the equator.
  - Longitude measures a location's distance east or west of the prime meridian.
  - Earth is divided into 24 time zones. The 48 contiguous states have 4 time zones, with Louisiana in the Central Time Zone.
  - Louisiana is bordered by Texas to the west, Arkansas to the north and Mississippi to the east
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# Natural Regions

- The United States is divided into 8 natural regions. Louisiana is in the Gulf Coast Plain region.
  - The 1874 Samuel Lockett geologist survey identified Louisiana's 5 major natural regions: Mississippi Floodplain, Red River Valley, Terraces, Marshes and Hills.
  - The Mississippi Floodplain region is subdivided into the natural levee, the swamp and the passes.
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# Natural Regions

- The Red River Valley follows the Red River from northwest to central Louisiana. It has a single stream with natural levees and lower-lying area behind them.
  - The Terraces region includes blufflands, prairies, and flatwoods.
  - The Hills region, Louisiana's highest and roughest terrain covers much of northern Louisiana and a smaller area in southeastern Louisiana
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# Waterways

- Waterways are Louisiana's dominant physical feature
  - The Mississippi River's name comes from an Algonquin word meaning "great river". The Mississippi River carries 275 billion gallons of water through the state every day.
  - The Red River dominates the second-largest river drainage system in Louisiana
  - Lake Pontchartrain is the state's largest natural lake.
  - The word bayou means "creek" in the Choctaw language. There are many varieties of bayous across the state
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# Climate

- Weather measures the current condition of the atmosphere on any given day. Climate is the average weather of an area over a long period (25 to 50 years)
  - Temperature, precipitation, and wind are the atmosphere conditions that describe climate.
  - Louisiana has a humid subtropical climate with 2 climate regions. North Louisiana and South Louisiana.
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# Climate

- North Louisiana has higher average temperatures because South Louisiana receives the cooling effects of the Gulf of Mexico
  - A tornado is a dark funnel-shaped cloud with strong swirling winds that circulate around a low-pressure center (an “eye”)
  - A hurricane is a violent storm with wind speeds over 74 miles per hour
  - More than 60 hurricanes have hit Louisiana since the 1850s including Hurricane Katrina, which caused record destruction estimated at \$135 billion.
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# People and the Environment

- Spring flooding is a natural part of the Mississippi River's yearly cycle. For thousands of years, those floods deposited soil that became new land.
  - The Flood of 1927 demonstrated the problems with the U.S. government's levees-only policy.
  - The Bonnet Carre Spillway is designed to drain water from the Mississippi River when floodwaters threaten New Orleans
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# People and the Environment

- Louisiana is home to about 40 percent of the continental United States' wetlands. Through coastal erosion, the state has lost 1,900 square miles of land over the last 50 years.
  - In 1990, the federal government enacted the Coastal Wetlands Planning, Protection and Restoration Act designed to protect, restore, and rebuild wetlands in Louisiana and other coastal states.
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# Geographical Location

- Resembles a boot
  - Florida Parishes stretch from Baton Rouge to Hammond to Bogalusa
  - Of the 50 states, Louisiana ranks 31st in size
  - 3,600 square miles of water ( $\frac{1}{4}$  of the state is wet)
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# Vocabulary & Key Terms

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Battle of New Orleans	1814-1815 which was the final major battle in the War of 1812 and the most one-sided war of the battle
Coastal Wetlands	Swamps, marsh and other areas that have a natural supply of water and are covered or soaked with water at least part of the year
Acadians	The descendants of the French colonists who settled in Acadia during the 17th and 18th centuries
Parishes	In Louisiana a territory division corresponding to a county in other states
Mississippi FloodPlain	A floodplain serves as a reservoir to hold excess water when the river floods
Coastal Erosion	One of Louisiana's biggest ecological problems; more than 35 square miles of land is lost each year
Delta	Formed when a river flows into an ocean - shaped like a bird's foot or fan

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# Vocabulary & Key Terms

Terraces	A series of flat areas made on a slope used for cultivation
Coastal Marshes	Wet grasslands formed by river sediment deposited along the coast.

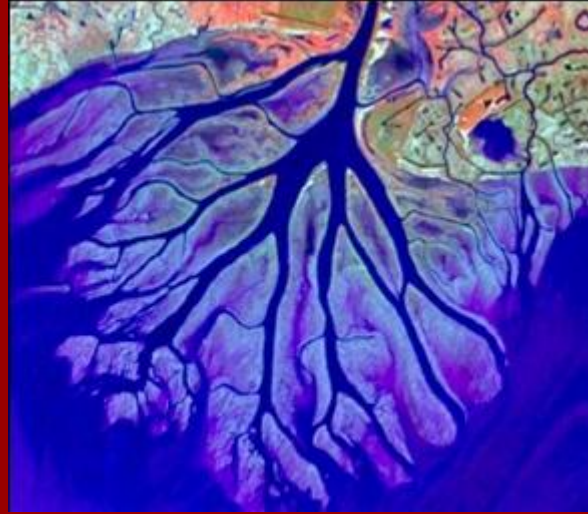
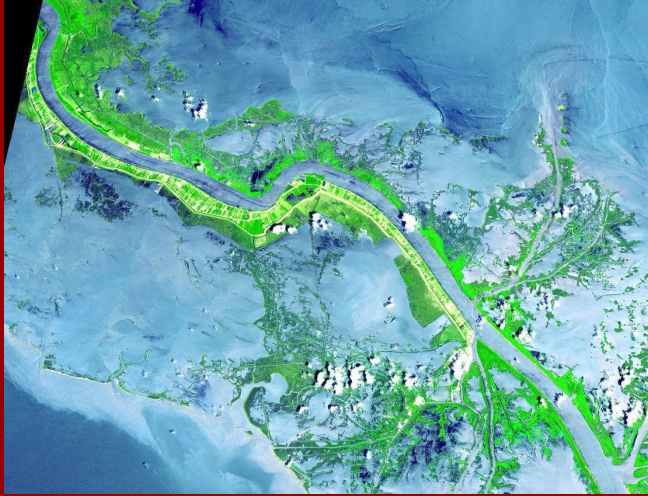
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# Mississippi Floodplain



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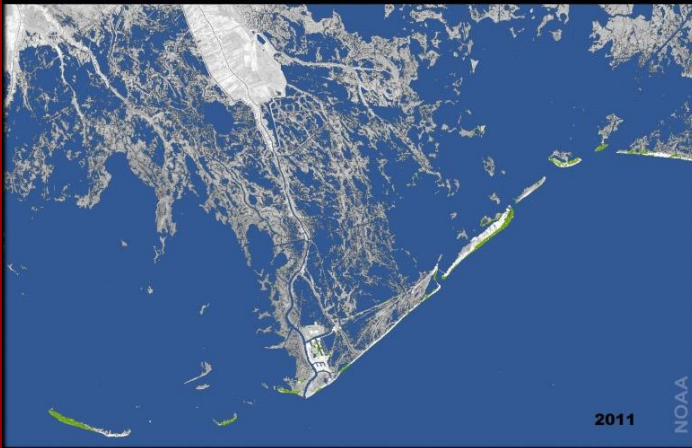
# Mississippi Delta



Mississippi Delta is where the river enters the Gulf of Mexico  
Bars (underwater barriers of mud) are formed at the mouth of the river

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# Louisiana's Coastal Erosion



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# Causes of Coastal Erosion

- As the river abandons its original delta, sediment no longer rebuilds the coastline.
  - Pounding waves and severe storms accelerate erosion.
  - Global warming causes ocean levels to rise, which causes coast marshes to disappear.
  - Levee systems force sediment into the deep waters of the Gulf, where it cannot settle and rebuild the coastlines.
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# Human Interference - Effects on Coastal Erosion

## Damaging Practices

- Dammed rivers create reservoirs that trap the sediment that would otherwise refresh the marshland
  - The search for oil involves the construction of pipelines and canals that allow for saltwater intrusion, which kills the marsh grasses that holds the soil in place.
  - Marshlands may sink because of vast holes created by underground drilling for oil and/or salt
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# Human Interference - Effects on Coastal Erosion

## Preservation Measures

- Grasses are being planted to keep soil intact.
- Sand is pumped into barrier islands to reinforce them.
- Caernarvon Diversion Project & Davis Pond Freshwater Diversion

[VIDEO](#)

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# Problems for Louisiana Wetlands



- Coastal Erosion
- Flooding
- Vanishing

Louisiana's wetlands are disappearing at a rate of one football field every 30 minutes!

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# Uses for Wetlands

- Recreational Opportunities
  - Thriving Habitats
  - Wildlife Pantry
  - Water filter (maintains water quality)
  - Storm buffer / controls flooding
  - Economic Resource
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# Vanishing Wetlands

## Natural Causes

- Subsidence, wave erosion, saltwater intrusion, sea level rising, tropical storms/hurricanes

## Human Causes

- Because of our ever increasing population, humans have eliminated or converted millions of acres of wetlands for other uses. We drain wetlands to create more land for agriculture and urban development
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# What Can We do to Help??

- Get Involved!
  - Save water(reduce the amount of water going through sewage treatment plants).
  - Dispose of household products, pesticides and other chemicals carefully.
  - Help to control to soil erosion
  - Recycle Christmas Trees
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# Save Our Wetlands Poster Project

- You and your group of 3-4 people are responsible for creating a COASTAL EROSION AWARENESS POSTER.
  - Your poster must be informative, visually appealing, and contain accurate information.
  - In addition, your poster must contain:
    - What wetlands are and how fast they are vanishing
    - Reasons for their disappearance, human and natural causes
    - What people can do to help
    - Illustration and title
  - Be creative and show your skills!
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# Gulf Coastal Plain

- During the Ice Age, much of the world's water was trapped in glaciers
  - Ocean levels were about 400 feet lower than today
  - The glaciers froze and melted several times
  - As the glaciers melted, the Mississippi River flooded the Louisiana coastline
  - Mississippi River deposited sediment into the Gulf of Mexico filling in part of it
  - Sediment - suspended particles of dirt and sand carried by rivers
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# Gulf Coastal Plain

- Coastal plains are a relatively low flat region built up by river sediment
  - Continental Shelf - the edge of the landmass where the Gulf's floor drops off into very deep water
  - Louisiana is the only state that lies entirely on the Gulf Coastal Plain
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# Climate vs Weather

- Weather is temperature, wind and rain on a daily basis.
- Climate is the long term weather pattern in a region
- Climate is affected by latitude, altitude, and nearness to large land masses or large bodies of water
- The state's southern latitude and nearness to the Gulf of Mexico gives the state a warm and stable climate

[VIDEO](#)

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## Louisiana's Humid, Subtropical Climate

- Hot summers, mild winters, and abundant precipitation
  - Favorable to tourism and agriculture
  - Lower winter energy costs can help make operating a business, school or agency less expensive
  - Certain plants and animals thrive in this climate
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# Precipitation

- 58 inches of rainfall each year
  - Florida Parishes receive most rain
  - Northwestern Parishes receive the least rain
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# Spring & Summer

- Spring weather is typically mild
  - Tornadoes can appear during thunderstorms
  - Summer temperatures reach over 100 degrees
  - High humidity throughout the state
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## Fall & Winter

- The weather is typically mild, although the temperature sometimes dips below freezing



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# Hurricane Ratings & Formations

- Hurricanes start in moist air over warm waters such as the Gulf of Mexico or the Atlantic Ocean
  - Hurricane season is June 1st through November 30th
  - Severity is rated on the Saffir-Simpson Hurricane Scale
  - Categories range from 1 to 5 depending on the storm's severity
    - Category 1 = wind speeds 75-95 mph
    - Category 5 = wind speeds over 155 mph
  - Southeastern Louisiana gets hit most often
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# DEFINITION OF THE SAFFIR/SIMPSON SCALE

CATEGORY	WINDS (mph)	SURGE (ft)	EXAMPLES: FLORIDA COAST
1	74-95	4-5	AGNES 1972
2	96-110	6-8	CLEO 1964
3	111-130	9-12	BETSY 1965
4	131-155	13-18	DONNA 1960
5	GREATER THAN 155	GREATER THAN 18	1935 STORM

[VIDEO](#)

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# Storm Surge

- Most dangerous part of a hurricane
- Ocean water rises several feet higher than normal
- High winds push the wall of water onshore
- Can reach as high as 28 feet

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# Tornadoes

- Form over land and are created by thunderstorms
  - Most common during the Spring when cold and warm fronts collide
  - Ranked from 1 to 5 using the Fujita Scale
    - Category 1 = 73-112 mph
    - Category 5 = 261-318 mph
  - Northwest Louisiana experiences the most
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# Rivers and Waterways

- Louisiana's waterways make our state;
    - Productive
    - Famous
    - Home to a unique ecosystem
  - Mississippi River
    - Main artery of Louisiana
    - Largest river in the United States
    - Fourth largest river in the world
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# Waterways that Border Louisiana

- East -- Mississippi River & Pearl River
  - West - Toledo Bend & Sabine River
  - South - Gulf of Mexico
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# Mississippi River



**VIDEO**

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# RED RIVER

- Second longest river in Louisiana
  - High salt content because it flows over an underground salt dome
  - Only major river in Louisiana that has white water rapids
  - Rapides Parish (French for rapids)
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**POPULATED PLACES**

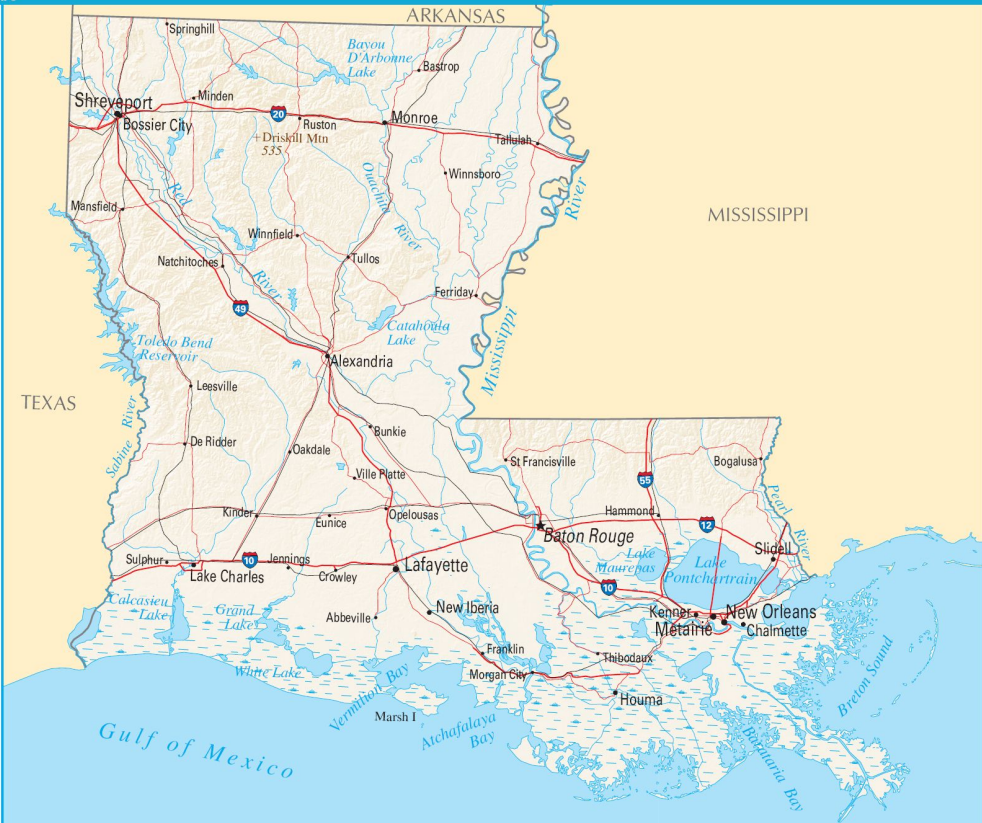
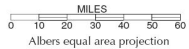
- 100,000 – 499,999 • New Orleans
- 25,000 – 99,999 • Lake Charles
- 24,999 and less • Ferriday
- State capital ★ **Baton Rouge**

**TRANSPORTATION**

- Interstate; limited access highway I-10
- Other principal highway
- Railroad

**PHYSICAL FEATURES**

- Streams
- Lakes
- Highest elevation in state (feet) +535
- The lowest elevation in Louisiana is 8 feet below sea level (New Orleans).



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# Atchafalaya River and Basin

- Longest distributary (branch of a river that flows away from the main stream) of the Mississippi River
  - Half of the nation's migratory birds migrate to the Atchafalaya.
  - Basin supplies the world with 23 million pounds of crawfish a year
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# Ouachita River

- Begins in the mountains of Arkansas and runs through Northeast Louisiana
  - Regulated by a series of locks that allow commercial barge traffic to travel to Arkansas
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# Sabine, Pearl & Calcasieu Rivers

- The Sabine River forms the border between Texas & Louisiana
  - The Pearl River forms the border between Mississippi and the toe of the Louisiana boot
  - The Calcasieu River lies within the state and is often used for transportation
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# Bayou Teche

- Joins the Atchafalaya River near the Gulf of Mexico
  - The Acadians (Cajuns) settled along the banks
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# Bayou Lafourche

- Exits the Mississippi River at Donaldsonville
  - Many French, Spanish, Africans & Native Americans settled along the banks
  - Highway 1, which runs the length of the Bayou is called the Longest Street in America
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# Gulf Intracoastal Waterway

- The 3,000 mile Gulf Intracoastal Waterway allows ships to travel from Texas to Florida without sailing into the Gulf

[VIDEO](#)

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# Gulf of Mexico

- The 5th largest sea in the world
  - Covers almost 600,000 square miles
  - Warm waters affect Louisiana's climate and economy
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# Types of Lakes

- Oxbow
  - Depression
  - Raft
  - Coastal
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# Oxbow Lakes

- Crescent or horseshoe-shaped lake
    - Example - False River & Lake Bruin
  
  - How an Oxbow Lake Forms
    - A river floods and cuts off a meander
    - The meander fills with sediment, which forms a lake
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# Oxbow Lakes



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# Depression Lakes

Are created when land sinks along a fault and fills in with water

Examples: Catahoula Lake, Calcasieu Lake, Lake Maurepas and Lake Pontchartrain

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# Raft Lakes

- Found only along the Red River
- Dams caused bayous to flood which resulted in the formation of the lakes

## Examples:

- Lake Bistineau
  - Black Lake
  - Saline Lake
  - Latt Lake
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# Coastal Lakes

- Found along the Gulf Coast
- Formed when cheniers slowed the flow of the rivers into the Gulf causing great pools of brackish water to build up

Examples: White Lake & Grand Lake

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# Reservoirs

Man-made lakes found mostly in North Louisiana

Examples:

- Caney Lake
  - Lake D'Arbonne
  - Lake Claiborne, Poverty Point and Toledo Bend
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# Salt Domes

Ancient Seas dried up leaving a layer of salt and other minerals exposed on the ocean floor.

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# Famous Salt Domes: The 5 Islands

- Jefferson Island
  - Avery Island
  - Weeks Island
  - Cote Blanche
  - Belle Island
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# Louisiana's Natural Resources

The Mississippi Delta is rich with natural resources.

- Sulphur
  - Closely associated with salt domes
  - Used to make acids, fertilizer, rubber, paper and other products
  - One of Louisiana's important minerals
- Oil
  - Oil production has been the most important part of our economy for many years.

[VIDEO](#)

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# Louisiana's Natural Resources

- Coal
  - Created when organic material is compressed by layers of sediment



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# Louisiana's Faults & Earthquakes

- Fault - Weak areas where tectonic plates cause the land to break off and slide downward
  - Earthquake - Ground movement along faults; frequent in Louisiana but most are small and unnoticeable
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# Cultural Geography

The study of how people live and interact with their environment

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# Sportsman's Paradise

- Many lakes, rolling hills and forests in this area which offer abundant outdoor recreation
  - Northern Louisiana has more in common with the neighboring states of Mississippi, Alabama and Georgia than with south Louisiana
  - Early settlers to this area came from other states.
  - Northwest City: Shreveport-Bossier City (in different parishes separated by the Red River)
  - Northeast City: Monroe-West Monroe (cities are joined by a bridge over the Ouachita River in Ouachita Parish)
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# Crossroads Region

- Covers the center of the state and merges the cultures of North and South Louisiana
  - Urban areas are Alexandria-Pineville. The cities are the on the banks of the Red River and are in Rapides Parish
  - Rural areas Cheneyville and Winnfield. Some people still live on farms and continue traditions.
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# Cajun Country Region

- Spreads over a triangle-shaped area in southwest Louisiana over 22 parishes.
- Oil industry brought cultural changes and new people to the area in the 1970's.
- Urban Centers are: Houma, Lafayette, Morgan City and Thibodeaux.
- The culture is divided into the Prairie Cajun and Wetlands Cajun
- Prairie Cajun: Eunice (Acadia Parish) & Vacherie (Lafourche Parish)
  - Cajun culture centered on agriculture and livestock; have cattle farms called Vacheries
- Westlands Cajun: Thibodeaux (Lafourche Parish) / Abbeville (Vermillion Parish)
  - Cajuns were fishers and trappers

[VIDEO](#)

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# Plantation Country Region

- Old plantation homes, live oak trees, and Spanish moss
- More plantation homes than any other place in the South
- Area along the Mississippi River and Tangipahoa River
- Urban Center: Baton Rouge (state capitol) Every ethnic group living in Louisiana is represented in Baton Rouge

[VIDEO](#)

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# Greater New Orleans Region

- Described as cosmopolitan
  - Exotic historic district
  - Sometimes described as having more in common with the Caribbean, South America and Europe than with the rest of the US
  - Has a relaxed atmosphere like that of the Tropics
  - Many cultures from across the globe are represented in this area
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# Population Density

Definition: the average number of people living in an area

Average population density in Louisiana is 103 people per square mile.

Average population density without New Orleans is 66 people per square mile

Average population density in the US is 87 people per square mile

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# Growth Rates

- Louisiana attracts fewer immigrants than many other states.
  - Growth rate is 5.9% (½ the national average)
  - Birth rate is dropping
  - Population is aging
  - Louisiana offers few jobs in high-tech industries; difficult times in the oil and gas industries have caused additional job loss
  - This has a negative impact on the state's economy and the quality of education and services that can be provided to Louisiana citizens
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# Culture

The way of life of a group of people. It includes:

Religion	Food	Music
Clothing	Language	Architecture
Art	Literature	Games
Sports		

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# Louisiana's Cultural Influences

- Festivals - Mardi Gras
  - Voodoo - African/West Indies
  - Cajun/Creole Cooking
  - Cajun Language
  - Music - Jazz, Gospel, Zydeco
  - Religions
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# Religion

- First European religion in Louisiana was Roman Catholic
- France and Spain were Catholic countries
- After the Louisiana Purchase in 1803, members of the Protestant religion moved into the area
- Methodists, Baptists and Presbyterians were later joined by Lutherans
- More recently, Jews, Buddhists and Muslims have joined as well

[VIDEO](#)

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# Push / Pull Factors

Push Factors - Push you out of an area (ex. War)

Pull Factors - Pull you to an area (ex. Jobs)

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# Ethnic Groups

A group of people who have strong feelings of belonging and who share common traditions, beliefs and patterns of living that include language, religion, customs and food

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# Acadians

- French Canadians that migrated from the Canadian province of Acadie (now called Nova Scotia) to Louisiana in the 18th Century
  - Mostly French speaking Acadian farmers made their way to Louisiana to develop the region of Acadiana
  - Acadiana covers 22 parish area of Louisiana; also called the Latin South or Acadian Triangle
  - The Acadian Triangle reaches more than 20 of Louisiana's 64 Parishes.
  - The Epicenter of the Cajun culture lies mainly in Lafayette, Acadia and Vermilion Parishes
  - Music, religion, language and way of life are distinctively different from the rest of the state.
  - This area is what most people think Louisiana is
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# Acadians

- Also known as Cajuns -- located in the Cajun Country Region
- Preserved their language and their customs
- Known for Cajun food and music





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# Anglos

- English speaking heritage; includes Scots-Irish
  - Migrated to Louisiana and established farms in the hill country of North Louisiana
  - Accent is Southern
  - Religion is Protestant
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# African Americans

- Came to Louisiana in several different ways
  - First slaves brought from West Africa - the Ivory Coast
  - Also had slaves brought from the French Colonies of the West Indies
  - The slaves spoke French in a dialect known as Creole - mainly those slaves coming from French colonies then brought to the US
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# Germans

- Immigrated to Louisiana during the early colonial years
- Did not retain their language so they soon blended in
- Settled in Acadia Parish and created the community of Robert's Cove which is home of the German Fest/Oktoberfest

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# Italians

- After immigrating, they arrived in Louisiana and became farmers, raising vegetables and strawberries
  - Largest group outside of New Orleans is in Tangipahoa Parish (where the Strawberry Festival is located)
  - Contributed many unique customs
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# Hispanics

- The oldest and best preserved Hispanic culture in Louisiana is the group of people who still refer to themselves as Islenos (islanders).
  - They descended from the Canary Islands
  - They live mostly in St. Bernard Parish and still speak the Spanish dialect and sing the songs of those first settlers
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# Native Americans

- Have land and tribal headquarters in several parts of the state
- The primary tribes still remaining are:
  - Chitimacha
  - Choctaw
  - Coushatta
  - Tunica-Biloxi
  - Houma

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# Louisiana's Festivals

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# Activity - Louisiana's Festivals

Research Festivals in Louisiana . Pick 5 festivals

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