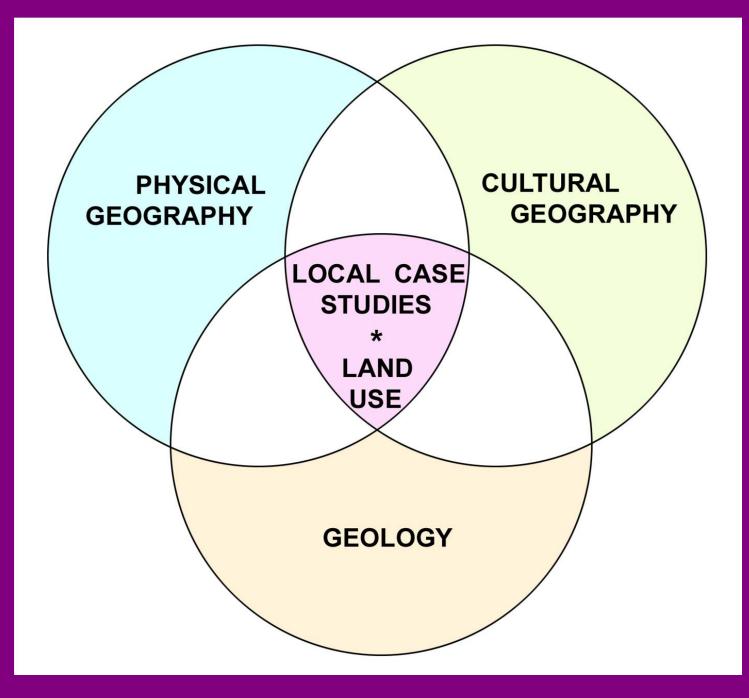


TEACHING GEOSCIENCE WITHIN AN INTERDISCIPLINARY CULTURAL CONTEXT USING LOCAL CASE STUDIES

### What is SE MAPS?

- Interdisciplinary curriculum supplement
- Unique landscape perspective (aerial view)
- Fully integrated, standards-based lessons
- Thematic study of human & natural history
- Inquiry-based student activities
- Teacher background information included
- Case studies and problem-solving focus



# The SE MAPS curriculum was designed to help students make:

- geological
- economical
- historical
- mathematical
- Cultural
- and environmental

connections to our region and world.



# The Southeastern USA is a region of unique landscapes



The Southeast has diverse:

- geography
- landforms
- 📖 cultures
- historical development
- anatural resources
- regional customs

#### **ORGANIZATION OF SE MAPS ACTIVITIES**

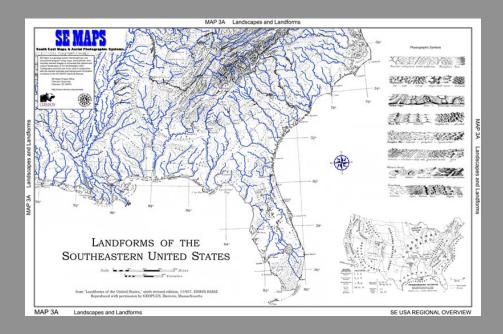
### 7 landform regions -21 study sites

- Appalachian Plateau
- Valley & Ridge
- Blue Ridge
- Piedmont
- Coastal Plain
- Coastal Zone
- Florida Peninsula



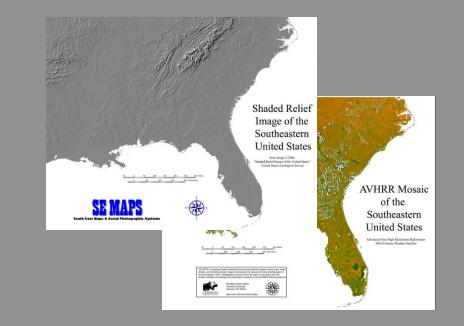
# **Cartographic Products**

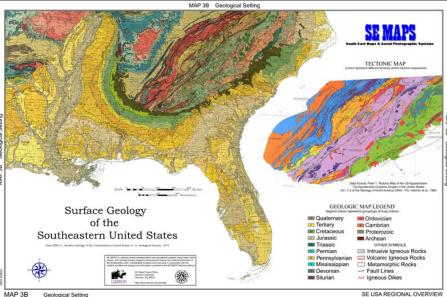
- Base Maps:
  - Shaded relief maps / political maps / cultural & historical maps
  - USGS Topographic Maps and geologic maps at various scales
  - Physiographic maps / digital elevation maps / land use-land cover maps
  - 3-D Anaglyph maps
- Satellite Imagery:
  - AVHRR thermal infrared images
  - LANDSAT and EOSAT false-color infrared images
- Aerial Photography:
  - NAPP & NHAP false-color Infrared Aerial Photographs
  - SCS B&W Aerial Photographs
  - SLAR (Side Looking Radar) images



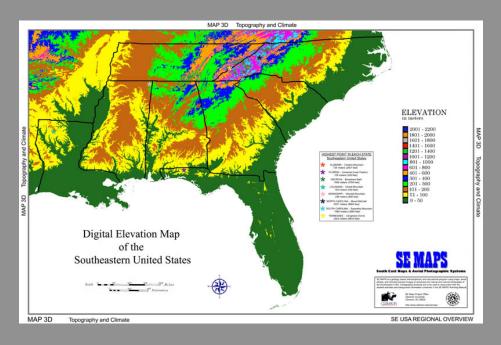
# **Regional Maps**

- Physiographic Map
  - Landscapes and Landforms
- Geologic Map  $\bullet$ 
  - Geological Setting
- Mosaic + Shaded Relief •
  - Landscape Patterns





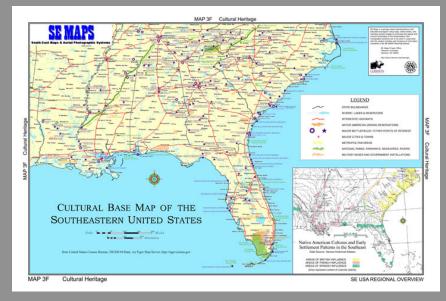
MAP 3B Geological Setting



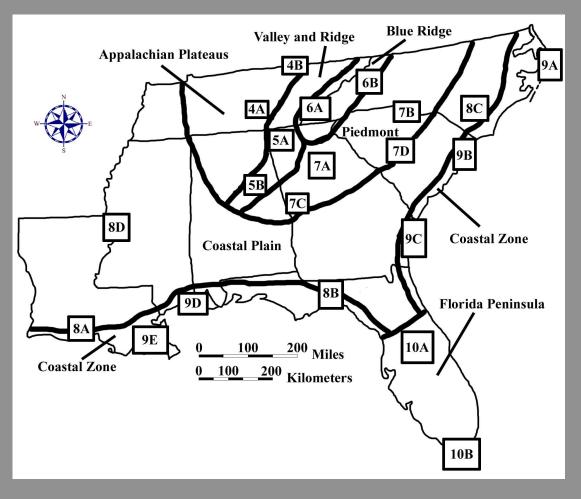
# **Regional Maps**

- Digital Elevation Map
  - Topography & Climate
- Political Base Map
  - Political Setting
- Cultural Base Map
  - Cultural Setting





# Appalachian Plateau Study Sites

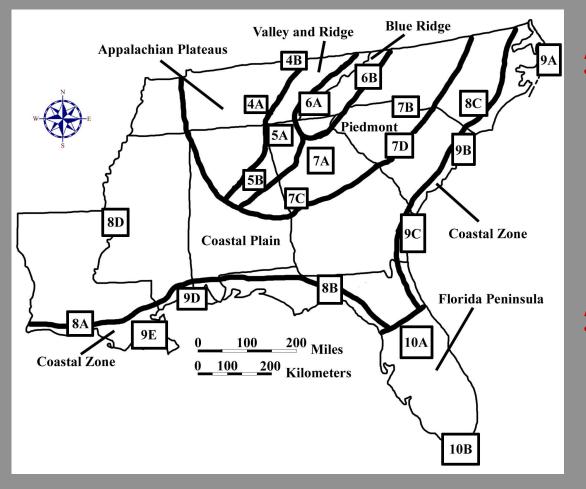


4A – Cumberland Plateau/Sequatchie Valley

- Karst Topography
- Influence of Geologic Structures
- Pumped Storage Hydropower
- **4B Cumberland** Gap
  - Cumberland Escarpment
  - Middlesboro Basin
  - The Wilderness Road

# Valley and Ridge

#### Study Sites

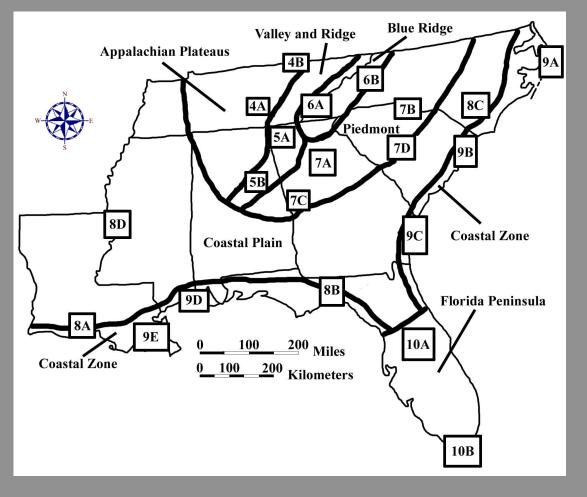


5A – Lookout Mountain

- Topographic Patterns
- Little River Canyon
- DeSoto's Historic Travels
- **5B** Birmingham
  - Mining Activities
  - Growth and decline of a Steel Mill Town

# Blue Ridge

#### Study Sites

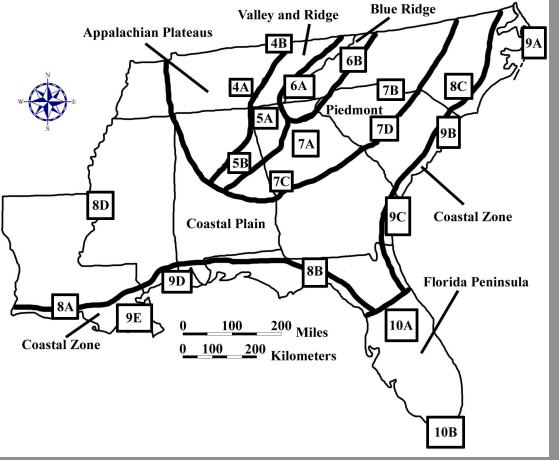


6A – Great Smoky Mountains

- Landscapes and land use
- Cades Cove
- Environmental Hazards
- 6B Blue Ridge Front
  - The Blue Ridge Parkway
  - Grandfather Mt. & Mt. Mitchell
  - The Blue Ridge Escarpment

# Piedmont

#### Study Sites

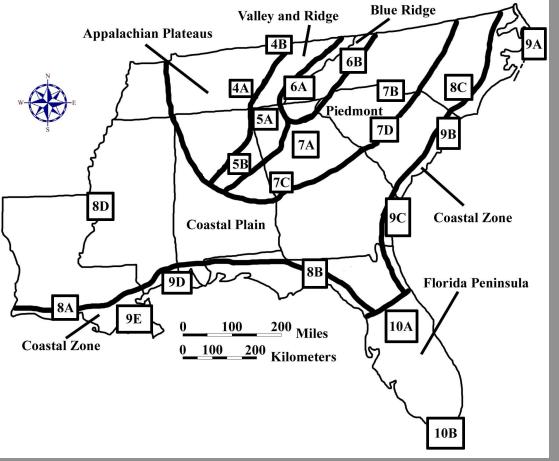


#### 7A – Metro Atlanta

- Stone Mountain
- Urbanization
- Soapstone Ridge & Archeology
- **7B** Kings Mountain
  - Transportation Corridor
  - Kings Mountain Battlefield
  - Mining and Restoration

# Piedmont

#### Study Sites

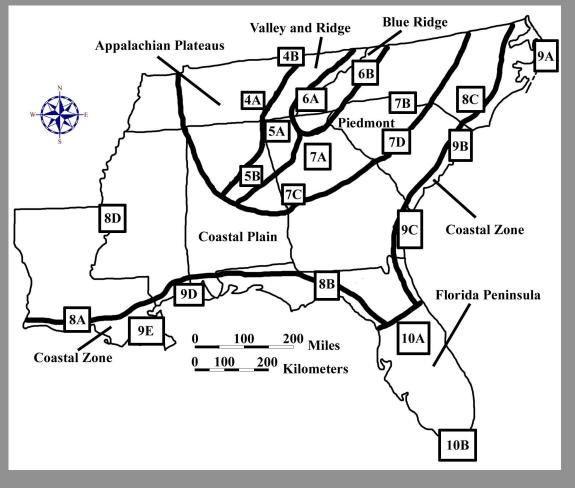


#### **7C – Pine Mountain**

- Geology of Pine Mountain Belt
- Warm Springs & Pres. Roosevelt
- Depression Era Farms
- 7D Columbia
- The Fall Line Zone
- Columbia and the Civil War
- Life in a Mill Village

# Coastal Plain

#### Study Sites



#### **8A – Salt Domes**

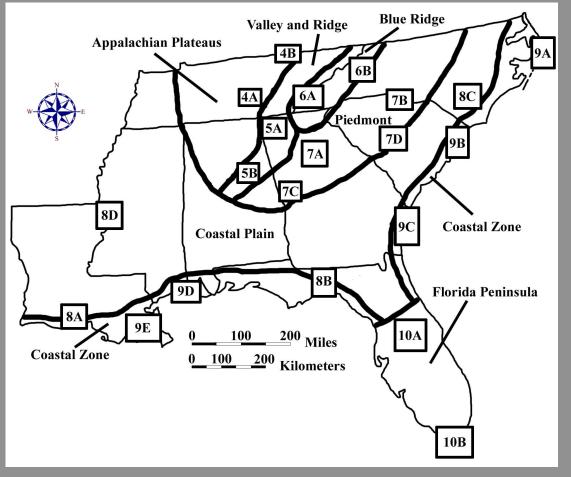
- Salt Dome Geology/Geography
- Cajun & other Cultural Heritage
- Exploration & Exploitation

#### 8B – Woodville Karst Region

- Leon Sinks & Ground Water
- Springs & Ground Water Table
- Freshwater Discharge at Coast

# Coastal Plain

#### Study Sites



#### **8C – Carolina Bays**

- Physical Setting of Bays

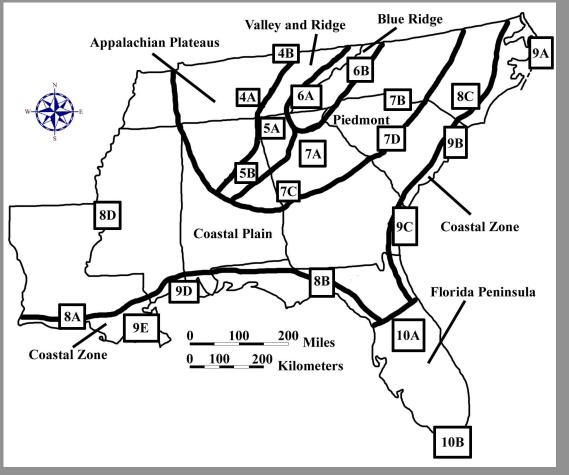
- Ecology/Environmental Issues

#### **8D** – Mississippi Alluvial Plain

- River & Floodplain Features
- Settlements & Agriculture
- Vicksburg & Civil War

# Coastal Zone

#### Study Sites



9A – Outer Banks

- Barrier Island Migration

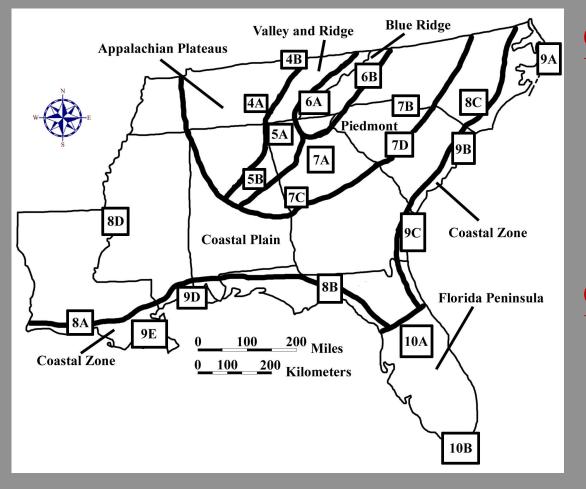
- Navigation and Land Use
- Historical Milestones

**9B** – Grand Strand

- A Changing Coastline
- Undersea Topography
- Tourism & Land-use Decisions

# Coastal Zone

#### Study Sites

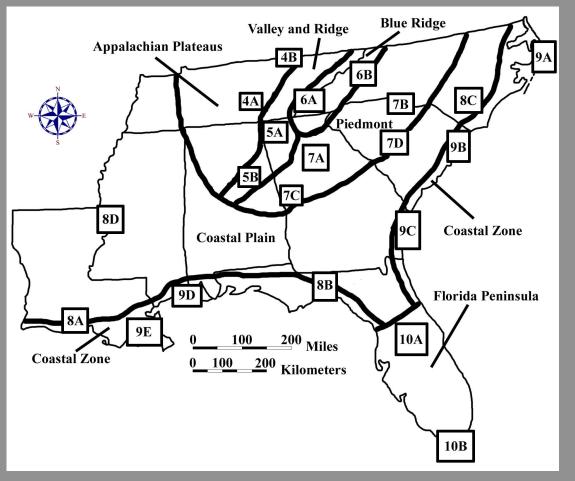


#### 9C – Georgia Coastal Corridor

- Sea Island Coastal Geology
- Agriculture & Forestry
- Savannah and Human History
- **9D** Mississippi Gulf Coast
  - Barrier Islands & Hurricanes
  - Human Impacts on the Coast

# Coastal Zone

#### Study Sites

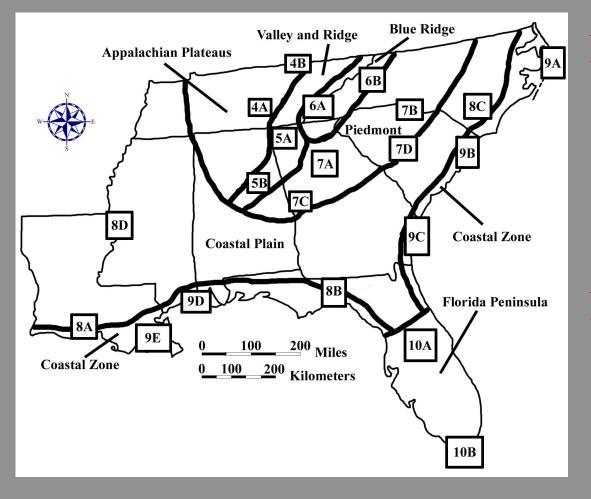


#### 9E – New Orleans to Gulf of Mexico

- Geology of Delta Processes
- Water Themes
- History/Future of New Orleans

# Florida Peninsula

#### Study Sites



#### **10A – Central Peninsula**

- Compare Gulf & Atlantic Coast
- Ridges on Central Highlands
- The Space Coast/Human Impact

#### **10B – South Florida**

- Everglades & Water Issues
- The Florida Keys
- Historic Landmarks & Land Use