The Florida We are all So Familiar With is a relatively new phenomenon, geologically speaking. This distinctive peninsula of land we live on, and the gently sloping, sandy shorelines we're drawn to for recreation and renewal, have not always existed as they appear today. In fact, Florida was a very different-looking place not so long ago, and over the past 500 million years it has had quite a unique and surprising geological history.

Beauty is in the eye of the Informed: Get to know the not-so-firm terra beneath your feet by exploring the full exhibit text of *Florida Formations*, and then answering the following questions.

Introduction: African Origins and 500 Million Years of Florida Geology

1. What are the two types of bedrock which constitute Florida's earliest foundation?
2. What is the name of the Paleozoic megacontinent to which Florida first belonged?
3. Over 250 million years ago, with which megacontinent did Gondwana collide?
4. What was the result of that collision?
5. What is the chemical formula of the mineral which is the major constituent of the rocks limestone and dolostone?
6. For how long have these carbonate rocks been accumulating to form Florida's "carbonate platform," and in what type of environment did these depositions originally occur?

Part 1: Florida Submerged (Cretaceous, Paleocene, Eocene; 145 – 34 Million Years Ago-MYA)

7. What is the name of the channel formation which isolated the Florida Platform from eroded siliciclastic sediments derived from the southern Appalachians and carried by North American rivers?
8. What effect did this channel have on the early "carbonate factory" of the platform?

9. Where were clays, sands, shales, and conglomerates formed?
   Where were limestones and dolostones formed?
10. What role did rudists play?
11. What are the two major Florida Formations (rock units) from this time period (145-34 mya)?
12. What type of deposition sequence forms the base of the Floridan aquifer system?

Part 2: Paradise Island (Oligocene; 34 – 23 MYA)

13. What global state during the Oligocene exposed the Florida Platform as a large island or group of islands?

14. What is the primary carbonate rock formation of the Oligocene?

15. What different conditions formed the Bridgeboro Limestone and the Marianna Limestone formations?

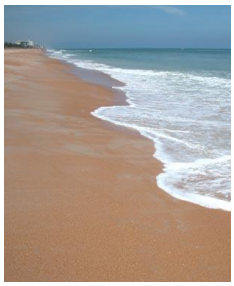
16. Name three types of organisms from this time period whose fossil remains represent the first major migration of *terrestrial* (land) animals onto the Florida Platform.

17. What is karstification? What are some of the resulting karst landscape features here in Florida?

Part 3: Florida Connected (Miocene/Pliocene; 23 – 2.6 MYA)

18. What happened to finally fully connect the Florida peninsula to the rest of the North American landmass?

19. During which time period did quartz-rich *(siliciclastic)* sediments become the dominant sediment in Florida?



20. As a result of this influx of sediments arriving from the north, what began amassing on Florida's fringes, which the state is now famous for?

21. What was the impact of the Panamanian Land Bridge on terrestrial communities?

22. What accounts for difference in the colors of Florida sand?

Part 4: Iceless Ice Age (Pleistocene; 2.6 MYA – 11,700 YA)

23. How did "The Great Ice Age" impact the Florida landmass?

24. Which Florida Formation was used to construct the Castillo de San Marcos?

25. Name some examples of "Pleistocene megafauna."

26. The emergence of what landform enabled humans to enter North America, and eventually Florida, by land from Asia?

27. What variety of fine-grained quartz was used by early Native Americans in Florida to make stone tools?

28. **What are two things you learned about Florida's geological past that you hadn't known before?**