Historical Geology
 Date
 Name

 Dr. Jan Rasmussen
 520-603-7656 janrasATcomcastDOTnet
 www.janrasmussen.com

Tejas sequence – Tertiary

- 1 What caused the extinction of the dinosaurs?
- 2 What major mountain range was formed at this time and what continental collisions caused it?
- 3 What was the speed of plate tectonics (sea floor spreading) at the end of the Cretaceous? How did this affect the type of subduction?
- 4 What are some major granite exposures near Tucson of latest Cretaceous, early Tertiary age?
- 5 What is the Eocene erosion surface? What sedimentary evidence is there for this in Arizona?
- 6 What is the Early Tertiary paleogeography? Where was the ocean? Where were there lakes?
- 7 Describe the Gulf Coast sedimentary sequence thin or thick and why?

- 8 What environment does the Badlands and White River formation and what is its age and what types of mammal fossils occur in it?
- 9 Where were the Cenozoic basins and what are some of the mineral resources in them?
- 10 Describe the difference between the Paleogene and Neogene in terms of the temperature, animals and plants.
- 11 What industrial mineral resource is found in the eastern Tucson area of early Tertiary age and how did the Indians use it?
- 12 How did the San Andreas fault get started?
- 13 What type of plate boundary is it?

How are the plates moving along it?

How did this affect the country to the east of it?

- 14 Explain how and where the Basin and Range province developed and what does the topography look like?
- 15 What type of plate motion do the East African rift valleys represent?

- 16 What plate tectonic event of mountain building caused a major reorganization of plate motions and what climates resulted all over the world?
- 17 What major plant group became most abundant during the Cenozoic? How does this benefit us?
- 18 A large volume of the mountains around Tucson (the Galiuros, White Mountains, Chiricahuas, Superstitions, N. Tucson Mts. etc.) resulted from what types of volcanic eruptions and when?