**Badlands National Park Study Questions**

1. In which state is Badlands National Park located? **South Dakota**
2. When was the national park established? **1939**
3. This geographic region experiences what kind of climate? **Plains region, continental climate**
4. What is the age of the underlying marine shale (Pierre Shale)? What is the age of the overlying mudstones, siltstones, shales, and sandstones (White River Group)? **Pierre Shale was in the Cretaceous Period. The age of the White River Group is about 40 million years old.**
5. What are the important fossils found in the White River Group? What kind of environments are their remains found? What caused the retreat of the sea through land uplift? **Lots of mammal fossils such as camels, brontotheres, and tortoises. Retreat of sea through land uplift caused by Laramide Orogeny.**
6. Are there some volcanic ash deposits in the park? If so, where and how were they formed? **Yes, there are volcanic ash deposits that were formed by rivers.**
7. Is this park near the Black Hills? What is the structure in which the sedimentary rocks occur? **Yes, it’s near the Black Hills. The structure from which the sedimentary rocks occur is mainly through river channels.**
8. What type of erosion occurred in the Badlands area to make hills and flat prairies?

**Chemical erosion/weathering**