

## #24: ANCIENT ROCKS

name:

### AGES OF ROCKS

Go back to <http://formontana.net> and then click on picture # 36.

1. In many places the surface of the land is covered by soil and/or sediment. For example in the middle of the Helena valley you would have to dig through thousands of feet of gravel before hitting solid rock. In other places the rock is exposed at the surface. According to this map, where are the youngest rocks in Montana (rock made up of material deposited since the dinosaurs died off 65 million years ago)?
2. Which color represents rock that is made of sediment that was deposited when there were dinosaurs in Montana?
3. Explain how the rocks represented by the red areas were formed.
4. Explain when and how the areas represented by light blue were formed.
5. What does the word tropical mean?
6. Dinosaurs roamed the planet from 250 to 65 million years ago. Why won't you find dinosaur fossils in the western part of the state?
7. **Click on the Hot Link titled “\*Maps of North America . . . “. Then click on “Early Carboniferous”.** This shows where the continents were when the Madison Limestone was being formed. List three landmasses (continents) that were located near the South Pole at this time.

### BELT ROCKS

Go to <http://formontana.net> and then click on picture # 93.

8. This photo shows an older rock formation called the Belt Supergroup. When was the sediment that makes up the Belt rocks deposited?

9. What do geologists call the area where the sediment was deposited?
  
10. Why aren't the layers in the photo in a horizontal position as they were when the sediment was being deposited?
  
11. The red areas on the map show where Belt rocks can be seen at the surface. How has the place where the photo was taken been marked?
  
12. What leads geologists to believe that there were no animals in the Belt Sea (a.k.a. Belt Basin)?
  
13. Why are geologists puzzled by the absence of sand (sandstone) among the layers?
  
14. Why are some rock layers in the Belt Supergroup green?
  
15. What type of environment causes the feature shown on the rock pictured near the bottom of the page?
  
16. **Click on the Hot Link titled "More about the Belt Supergroup"**. What is the point of showing this hill 20 miles southeast of Great Falls?
  
17. The bottom photo shows an area between Great Falls and Helena. Why do geologists think that the silt that makes up these rocks was deposited in shallow water?