

EARTH SCIENCE

Relative Age – 1

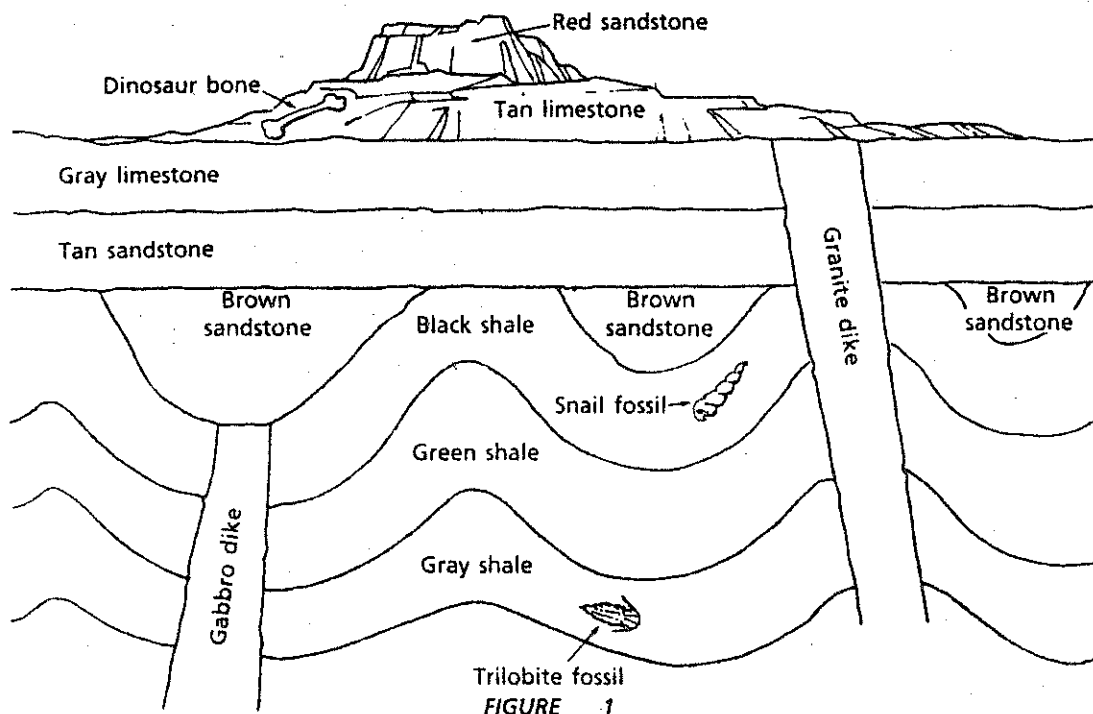
Name _____

Period _____

The **Principle of Superposition** states that on older rock layer, and things buried in it are underneath younger layers, unless the rocks are overturned. Igneous rock features may cut across other rock layers. The feature that cuts across other rock layers is younger than the layers it cuts. This is called the **Principle of Crosscutting Relationships**.

PART A.

Look at the side view (cross section) of the rocks shown in the diagram below. For 1 through 10, state which of the two named materials is older. Write that name in the blank to the left of that problem.



1. tan and brown sandstone
2. Brown sandstone and gray limestone
3. gabbro dike and brown sandstone
4. gabbro dike and gray shale
5. granite dike and tan limestone
6. granite dike and black shale
7. snail fossil and trilobite fossil
8. snail fossil and dinosaur bone
9. snail fossil and green shale
10. dinosaur bone and red sandstone

PART B.

Justify your choice for each of the previous answers by writing the name of the Principle that you used to determine that answer.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

PART C.

Put the names of the rock units from Figure 1 in order from oldest to youngest.

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

PART D.

In the diagram, there are at least 3 *unconformities*. Find them and identify them by listing the two rock units that the unconformity lies between.

1. _____
2. _____
3. _____