Relative Age & Absolute Age Worksheet **NAME _____ HR__ /47**

1. Define the following "rules" that are used to determine the relative age of a rock layer. (3pts)
   Law of Superposition-
   Principal of original horizontality-
   Law of crosscutting relationships-

2. What are unconformities? What are the 3 types and their definitions? (7pts)

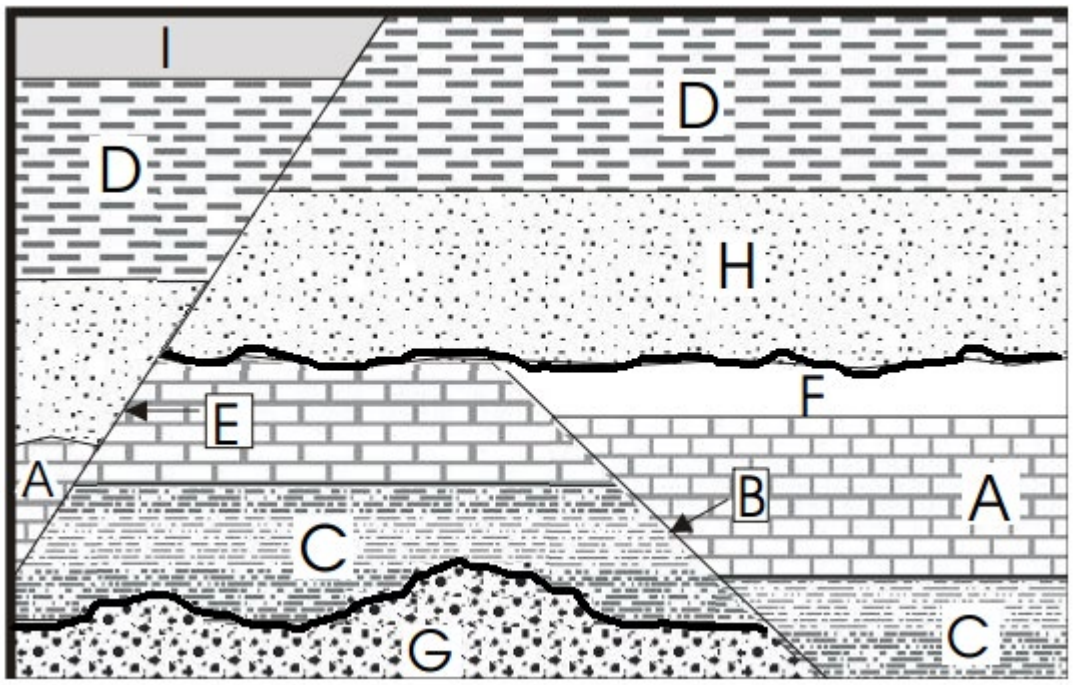
   Unconformities-

   _____ -

   _____ -

   _____ -

3. USE THIS DIAGRAM TO ANSWER THE QUESTIONS BELOW:



List the order of events (don't forget faults and erosion events)

1 7
2 8
3 9
4 10
5 11
6

4. If G is igneous granite, then what is the name of the unconformity just above this layer?

5. If the layer E and layer F are both sedimentary rocks, then what is the name of the unconformity just above those layers?

6. What term means the age of something compared to something else?

7. What term means the actual age stated in years?

8. What is the difference between parent and daughter isotopes?

_____

_____

9. What is a half-life?

_____

_____

10. What percentage of parent isotope is present after 4 half-lives?

11. What percentage of daughter isotope is present after 5 half-lives?

12. Why can Carbon-14 only be used to date objects less than 70,000 years old?

13. Fill in the table below.

Half-lives	% Parent Isotope	% Daughter Isotope
0		
1		
2		
3		
4		
5		
6		

11. If an object has a half-life of 10,000 years and there is 12.5% parent isotope left along with 87.5% of the daughter isotope. How old is the object?

12. If an object has a half-life of 50,000 years and there is 75% of the daughter isotope left. How old is the object?

13. If an object has a half-life of 25,000 years and there is 6.25% of the parent isotope left. How old is the object?

14. How old is an object with 50% of the parent isotope and a half-life of 40,000 years?