

AIM: How should we prepare for our mid-term on Thursday, January 21, 2010?

Do Now: Read the statement below and sign on the line if you understand what is expected of you.

I understand that during this class period we will be reviewing concepts that we will be responsible for on the mid-term. I will be working independently and quietly on this review sheet. If I turn in this review sheet on the day of the test, then I will receive 2 extra credit points on the mid-term exam.

X \_\_\_\_\_

I. Make flashcards, a foldable for the following words and study them:

Concept (put on the front)	Definition (put on the back)
<b>Absolute date/age</b>	The actual age or date that a rock or event happened example: this rock is 30,000 years old
<b>Relative date/age</b>	The order of events or rock layers (1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , older, younger)
<b>Uniformitarianism</b>	The idea that everything that happens today happened in the same way in the past: the present is the key to the past
<b>Principle of original horizontality</b>	This states that sediments are deposited in flat, horizontal layers. If they are not in this position, then something must have happened to them.
<b>Principle of superposition</b>	This states that older layers will be found on bottom. This can be used to find the relative age of rock layers: the older they are, the lower they are in the outcrop.
<b>Cross-cutting relationships</b>	Any rock or event that cuts or affects one or more older rock layers. (example: igneous intrusion)
<b>Igneous intrusion</b>	Rock that forms when magma cuts through older rock layers and then solidifies. The intrusion is younger than rock layers that it cuts through. (If the rock layer has contact metamorphism then it is older than the intrusion)
<b>Correlation</b>	Using index fossils and rock similarities to match up rock layers from different areas to show that they formed around the same time (matching)
<b>Index fossils</b>	Evidence or remains of living things that can be used to find the age of a rock because of 2 special characteristics: 1) they are found over a wide geographical area (found in many outcrops) 2) live during a short period of time (found only in specific layers of rock)
<b>Radioactive dating</b>	Looking at the proportion of different elements inside a rock in order to figure out how old it is (absolute age)
<b>Half-life</b>	The amount of time it takes for a radioactive isotope to decay 50% (50% will be original isotope, 50% will be decayed/stable isotope)

- 1) Most of the living things that have existed on Earth have become \_\_\_\_\_
- 2) During which time period would you be able to find placoderm fish and ammonoids in the same rock layer? \_\_\_\_\_
- 3) Which of the following fossils have wings? (circle) *Coelophysis*, *Aneurophyton*, *Condor*
- 4) Which of the following fossils are trees? *Coelophysis*, *Aneurophyton*, *Condor*
- 5) Which of the following fossils are dinosaurs? *Coelophysis*, *Aneurophyton*, *Condor*
- 6) During which time period did Pangea begin to break up? \_\_\_\_\_
- 7) Put the following events in order from oldest to youngest (1=oldest, 4=youngest)
  - Earliest fish \_\_\_\_\_
  - Earliest amphibians \_\_\_\_\_
  - Earliest mammals \_\_\_\_\_
  - Earliest soft-bodied organisms \_\_\_\_\_
- 8) A seismic station is located 2000 kilometers from the epicenter. What is the time difference between the arrival time of the S-waves and P-waves of this station? (Explain how you get this answer)



