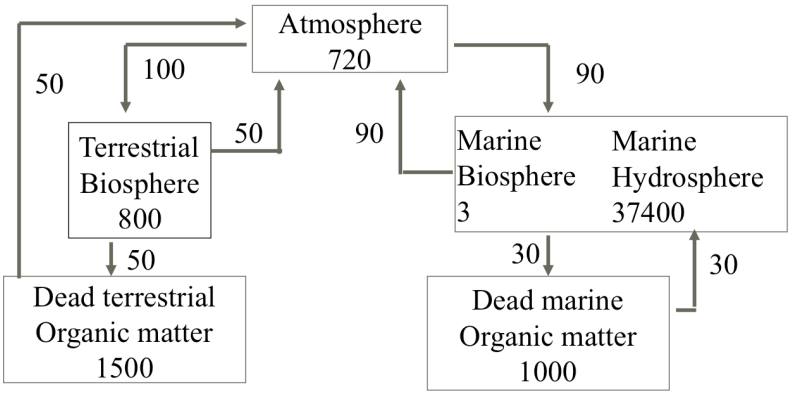
1. Carbon often combines with different atoms to form different molecules in the carbon cycle. In which of theses processes does carbon change from being a part of an ion in solution to an atom in a solid compound.

a. biochemical precipitation
b.metamorphic degassing
c. weathering
d.compaction



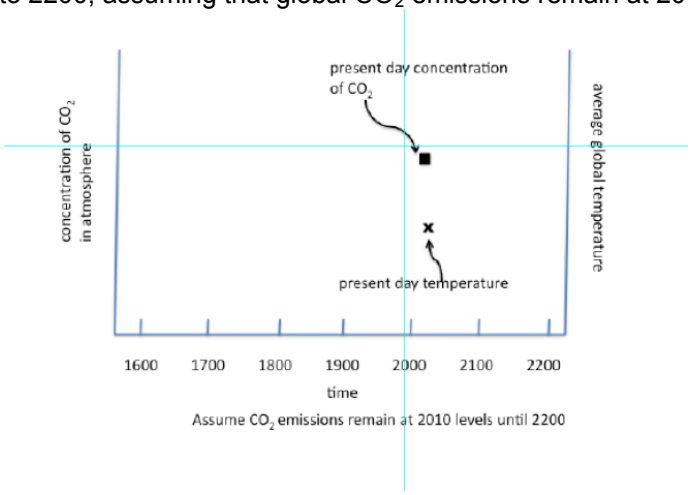
2. Based on the box and arrow diagram above, which reservoir(s) would have a residence time between 20 and 100 years.

a. all except the marine hydrosphere
b. the terrestrial biosphere
c. dead terrestial organic matter
d. both dead marine and the atmosphere

3. As carbon dioxide levels in the atmosphere rise, which of the following will increase directly?

a. calcium silicate weathering
b. biochemical precipitation
c. metamorphic degassing

4. Draw lines showing CO_2 conceptrations and temperature from 1600 to 2200, assuming that global CO_2 emissions remain at 2010 levels.



5. Based on the sketch below, draw a box and arrow diagram showing reservoirs and process as carbon moves from the limestone to the oil in the ground. To keep you diagrams neat- please use these abbrieviations if need. ATM= atmosphere,TR= transportation, BP= biochemical precipitation, DG= degassing, PH= photosynthesis, R= respiration, D= deposition. This list is not complete and may contain terms you will not use.