

Name: _____

Sedimentology Homework 1:

- In chapter 1 in the textbook, Boggs uses three categories (processes) for chemical weathering. What are the three processes or categories of reactions? Give example reactions for each.
- Table 1.2 shows the relative reactivity of minerals with the reactivity of sand-sized fragments shown on the left and that of clay-sized particles on the right.
 - What is the main trend in the mafic minerals that might cause their increasing stability going from olivine to biotite? What factors might complicate this relationship in the “real world” of sedimentary environments and sedimentary rocks?
 - On the list for clay-sized particles, (right side of Table 1.2) quartz is fairly high up on the list (approximately mid-level in terms of reactivity); igneous minerals such as ilmenite and zircon are the least reactive. What are some factors that would lead to this relationship for clay-sized particles? (*Hint: what would you want to ask the author about how this list was produced?*)