

OLD TEXTBOOK FROM BEFORE 2023 (Zumdahl, ignore if a student in 2023-2024 or beyond). I'm keeping this on the class website as a reference for myself.

Unit 2:

This is the stuff you do not need to know (or read notes that I said in general)

Chapter 8:

- Almost all of 8.5 (except pg 342 is good to know)
 - Caveat: understand exothermic vs endothermic processes (exothermic is negative)
- From 8.6
 - Not need to know formula of percent ionic character of a bond
- From 8.7
 - You don't need to understand the calculations from pg 348 but know roughly what is happening there
- 8.8 Covalent Bond Energies and Chemical Reactions
 - Ignore entirely for now. Will be in a different unit about enthalpy and ΔH later on in year

Chapter 9:

- While you don't need to know how the diagrams look like for hybridization, you should know they are combining to form the hybrids
- Don't need to know how hybridization was derived from
- Don't need to know depicting hybrid orbitals (as in how did we decide those), but still need to know sp, sp², sp³, etc also need to know sigma and pi bonding
- Do NOT need to know hybridization with d orbitals (such as dsp³, d²sp³)
- Molecular orbital theory is recommended as a way to provide deeper insight into bonding. However, the AP exam will neither explicitly assess molecular orbital diagrams, filling of molecular orbitals, nor the distinction between bonding, nonbonding, and antibonding orbitals.
 - Need to know stuff like bond formation overlap between atomic orbitals, overlapping of sigma and pi bonds, structural isomers
- I have not seen text that proves/disproves you need to know about paramagnetism or diamagnetism for the AP test...I'm still researching but it doesn't seem like you need it so far.

Chapter 10:

- 10.1 → skip section since will be in unit 3
- 10.3
 - Not need any of the calculations in xray part
 - You only need to vaguely know about the different ways metals can be in 3D. You don't hardcore need to know the shapes and which one corresponds to which, mainly that the metals exist in a lattice and that it's repeating.
- 10.4
 - Know roughly why things are tight packing

- Not need calculations (will recheck later if true in other unit)
- 10.5
 - Not need MO stuff in any part of section
 - Not need ceramics subsection
 - Not need transistors and printed circuits (might talk about it in future unit)
- 10.6
 - Not need number of ions in unit cell (to my knowledge)
- 10.8
 - Not need anything about ΔH_{vap} or ΔH_{fus} (yet) → future unit I forget which off the top of my head
 - Pg 461-463, not need to know calculations
- 10.9
 - Skip this section because phase diagrams are in unit 3