

AP Chemistry

Reading questions, chapter 1

Chem 1 virtual online textbook

1. Draw the diagram that shows the organization of Chemistry.
2. Define (briefly): dynamics, energetics, composition and structure, and synthesis in your own words.
3. Compare: macroscopic vs microscopic, mixture vs pure substance, elements vs compounds, element vs atom, formula vs structure, compound vs molecule
4. Draw your own flow chart that shows what pure substances can be made of.
5. Compare chemical vs physical change
6. What does an equilibrium mixture refer to?
7. Briefly define chemical thermodynamic (*energetics), mechanism, intermediate, transition state, kinetics, catalyst
8. Draw the flow chart that describes chemical change in terms of rate and extent.
9. Write a general description of the following methods of separation: distillation, solvent extraction, chromatography, gel electrophoresis.
10. Write a general description of the following methods of substance identification: spectrophotometry, atomic emission spectrophotometry, mass spectrophotometry.