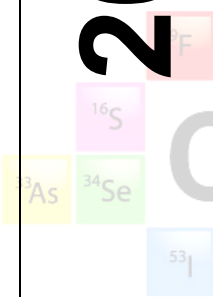


AP Chemistry Free-Response Topic Summary 2014-2015 (new exam)

	Question #	Parts	Topic(s)
2015	7	a-b	$q = m c \Delta T$ and enthalpy of fusion, data analysis/stoichiometry
	6	a-b	Polarization and covalent/ionic character, hydrolysis of salts
	5	a-c	1 st order kinetics, experimental design, experimental design (spectrophotometer wavelength)
	4	a-c	K_{sp} , common ion, particulate diagram (hydration)
	3	a-f	Net ionic (acid-base), titration, indicator choice, pH at equivalence point, titration curve, major species in solution
	2	a-f	Stoichiometry ($P V = n R T$ and water vapor pressure), % yield, ΔG calculation and favorability, Lewis structure, VSEPR, IMF's
	1	a-e	Electrochemical cell, mass of electrodes, non-standard conditions, electron stoichiometry, electronic configuration of atoms and ions

	Question #	Parts	Topic(s)
<p style="font-size: 48pt; text-align: center;">2014</p> 	7	a-d	First order kinetics, half-life, data analysis, temperature/KE/E _{act}
	6	a-c	Density, IMF's, ΔH calculation from formation enthalpies
	5	a-d	Periodicity, Lewis structures, VSEPR, periodicity
	4	a-d	$P V = n R T$, data analysis, equilibrium, K _p expression
	3	a-e	Electrochemical cell, mass of electrodes, salt bridge, non-standard conditions, net-ionic and calculate E _{cell} , ΔG calculation
	2	a-e	K _a , pH at equivalence point, pH related to concentration, titration, choice of indicator
	1	a-g	Net ionic (precipitation), gravimetric lab (data analysis, equipment choice), stoichiometry