

ROBINSON SECONDARY SUMMER 2024 Activity

IB Chemistry Standard Level

Purpose: Welcome to Standard Level IB Chemistry! The purpose of this activity is to review material from IB Chemistry 1 until it is mastered. Mastery of the material covered in IB Chemistry I is absolutely essential for success in IB SL Chemistry. I will be available by email to assist you while you review the material from the first year to prepare for an exciting year in SL Chemistry.

Directions:

1. Find your Chemistry notebook from IB Chemistry 1. You will want to use your notes, objectives and resources to help you.
2. Log on to <https://sites.google.com/fcpschools.net/sl-chemistry-at-robinson/home>. you will find your Summer Assignment.
3. The IB Chemistry Textbook used for this assignment is located as its own tab. You will need to complete the following assignments from this IB Chemistry Textbook. Multiple choice questions should be solved with the work shown but may be printed out. You do **NOT** have to copy all of the questions word for word. You **MAY** also print charts and fill in the blanks to help make this assignment easier, but printing is **NOT** required.

a. Chapter 1 Quantitative Chemistry

1.2.3 pg 7-8 #1-9 (odd only)

1.2.4 pg12-13 #11,13,17

1.3 pg 14 #5

1.3.1 pg 17 #4 (a-c), 5(a-c)

1.4.1 pg 21 #2

1.4.2 pg 24 #6-8

1.4.3 pg 26 #6-8

1.5 pg 29 #7-9

1.5.1 pg31 #4

b. Chapter 2 Atomic Structure

2.1 pg 50-52 #1-12

c. Chapter 3 Periodicity

3.1 pg 72 #1-3

3.2 pg 75 #1-6

d. Chapter 4 Chemical Bonding

4.1 pg 101 #1-5

4.2 pg 106 #1-6, 7 a-c, 8

e. Chapter 5 Energetics

5.1 pg 137 #1-4

f. Chapter 11 Measurement and Data

11.1 pg 298 #1-6

Polyatomic Ions	
Formula	Name
$C_2H_3O_2^-$	ethanoate (acetate)
CN^-	cyanide
SCN^-	thiocyanate
$H_2PO_4^-$	dihydrogen phosphate
HCO_3^-	hydrogen carbonate (bicarbonate)
HSO_4^-	hydrogen sulfate (bisulfate)
OH^-	hydroxide
NO_3^-	nitrate
NO_2^-	nitrite
MnO_4^-	permanganate
CO_3^{2-}	carbonate
CrO_4^{2-}	chromate
$Cr_2O_7^{2-}$	dichromate
HPO_4^{2-}	hydrogen phosphate
SO_4^{2-}	sulfate
SO_3^{2-}	sulfite
PO_4^{3-}	phosphate
NH_4^+	ammonium

4. **REVIEW AND MEMORIZE the polyatomic ions listed on this assignment.** They are also posted under course materials on our summer assignment Blackboard site. You should know the name, charge, and formula.
5. **REFLECT on an Individual Assessment Investigation Project** (think individual science fair project on a Chemistry topic you could do here at school). Your proposal should include the IV (levels, units and how it will be measured), DV (how it will be measured), hypothesis with explanation and 1 paragraph of background research (with references). Format and form can be found on Summer Assignment Google Site. Please consider scope of project and safety as you are looking at possible ideas. Contact me if you have and questions or concerns.

Working on this assignment and reviewing your Chemistry 1 material will help you start the year strong. This assignment is not graded but an answer key will be available at the start of the year. I can be contacted over the summer by email - dagross@fcps.edu. Please send me your full name when emailing me with questions.

