

Honors Chemistry
Instructor: D. Bloomenstiel

Major topics

First Semester

First Quarter

Inquiry/ Scientific Method
Equations
Scientific Measurements
Problem Solving
Matter and Change
Atomic Structure
Nuclear Chemistry

Second Quarter

Chemical Formulas and

Chemical Quantities.
Chemical Bonding
Chemical Reactions
Periodicity
Stoichiometry

Students will complete an investigative science project during the first semester

Second Semester

Third Quarter

Stoichiometry
Solids and Liquids
Solutions
Reactions
Graduation Exit Exam (GEE) prep, science

Fourth Quarter

Behavior of Gases
Acids and Bases
Oxidation – Reduction

Chemical Equilibrium

Labs

1. Measurement Lab
2. Density Lab
note: Holt or Holt: Accuracy & Precision lab is a combo of both
3. Evidence of a Chemical Change
4. Separation of a mixture
5. Conservation of Mass lab (modified Holt lab),
6. virtual lab- Rutherford's experiment
7. BEAN Bag Isotope activity,
8. Modeling Radioactive decay Activity,
9. : Modeling Half-life/ Twizzler Activity
10. Atomic spectra (discharge tubes),:
11. Flame test lab
12. Density is a Periodic Property
13. Periodic Activity of Metals
14. Lewis Structures and Molecular Geometry
15. Prop of Solids,
16. splatter test – drops on a penny activity
17. The color of Chemistry (cloth dying)
18. Formula of an Ionic Compound

19. Who' Counting (counting by weighing),
20. Chem RX & Qualitative Analysis
21. Colored Precipitates
22. Periodic Activity of Metals
23. Micro Mole Rockets (H_2 & O_2 Mole Ratio)
24. Stoichiometry and Gravimetric Analysis or
25. Experiment 7-2 Naming Ionic Compounds (can use this exp. for stoichiometry)
26. Wet Dry Ice (Interpreting a phase diagram)
27. Rate of dissolution
28. Colorimetry and Molarity
29. Precipitation rx
30. ChemFiles Micro Exp B14: Reacting Ionic Species in Aq. Solution
31. Acid/ Base indicators or Chemlabs Consumer exp: Household Indicators
32. Hydronium Ion Conc & pH
33. Titration of an Acid with a Base
34. Gas Laws
35. : Redox Titration
36. Chemfiles Part A: Temperature of a Bunsen Burner