

## Chemistry 11

**Instructor:** Mr. B. Quast

**email:** bquast@shaw.ca

**Room:** 106

**Textbooks:** Hebden Chemistry 11

**Topics covered:** See *Topics in Chemistry 11 at the end of this outline*

**Term Breakdown:** Tests: 45% Labs: 8% Quizzes: 12% Homework: 5% Final Exam: 30%

**Grades:** Grades will be emailed to students and parents weekly.

**Webpage:** The Chemistry 11 webpage contains everything you need for the course, including a course calendar, notes, notes keys, worksheets, worksheet keys, labs, and any general info such as this outline, homework stamp sheet, lab rubrics etc. The webpage is very important if you are absent. You can see what you missed that day (using the course calendar), then access what you missed that day (notes keys & worksheets) in order to stay caught up. There are also many videos and animations available that support the concepts in the course. My webpage is [mrbquast.weebly.com](http://mrbquast.weebly.com)

**Tests** will be written at the completion of each unit and are always listed on the course calendar on the webpage. Be responsible and prepare for tests! If a test is not written due to absence, an excused absence (a note or an excused absence on the database) is required and you will write the test soon after your return.

**Retests:** You can retest up to 2 unit tests. In order to do so, you must be finished all homework assignments for that unit. You must set up a time to write a retest.

**Quizzes:** You will always be informed of a quiz (one day in advance). If you miss a quiz, you will not write it at a later date, you will simply get your subsequent test percentage for that quiz. If you are absent one day, and want to check if there is a quiz the next day, use the course calendar.

**Homework:** Assignments are given almost daily, but randomly chosen to be marked for completion. Late homework assignments can be marked for half credit. At the end of the term, the homework is tallied for grading. A master homework sheet will be at the side of the classroom for reference.

**Labs:** Experiments will be done periodically. Lab write-ups will be self-evaluated using a rubric before handing in. Lab write-ups can be handed in late with a small deduction up to the time that the marked labs are handed back (3 class days later). After this time, the lab report will not be accepted. There will be a focus on helping you become competent at writing properly formatted, quality reports.

**Attitude/Behaviour:** Come to class with a friendly, relaxed, mature manner, but be prepared to work hard.

**Absences:** It is your responsibility to find out what was missed and take the proper steps to catch up! Check the Course Calendar on my webpage. Access the notes and assignment from my webpage. If you miss class the day before a test, you still write the test on test day – come in early to get prepared. Be proactive (instead of reactive) about staying caught up!

**Phones:** Cellphones, or any other digital devices (including headphones) must be on silent and out of sight by the start of class. Being distracted by your phone at any point in class takes away from your time in gaining a deeper understanding of chemistry. Even if you're 'done' your assignment, look back, look forward, flip through the text, ask for some enrichment questions. Using your phone to listen to music hinders my ability to give instructions, and also inhibits community building within our class. A cell phone should not be used as a substitute for a calculator. Students will use dedicated scientific calculators during class and on all tests and quizzes. It is recommended students have the 'Mount Doug' Sharp EL-510RN calculator.

**4 things to live by in Chemistry 11:**

- 1. Work hard. If you listen and try in class, and complete your homework daily, your chances of success greatly increase.**
- 2. Don't complain in class. If you have a problem or suggestion, talk to me in a mature manner.**
- 3. Be responsible for your work and preparation. Be aware of what is going on in the class with assignments, quizzes, tests, and the respective due dates. You know test dates a week in advance. If you are having trouble, seek extra help. If absent, get caught up ASAP!**
- 4. This is an academic course, and is challenging. Be ready each day 😊**

**COVID-19:**

**-Social Distance as much as possible**

**-Practice hand hygiene**

**-Be aware of others**

**-If school shifts to have an online component, be ready to transition quickly**

**-You cannot allow yourself to fall behind in a quarterly system as the course is only about 9 weeks long! So if absent due to illness etc, be ready to work from home using the webpage.**

## Topics in Chemistry 11

**Safety:** laboratory guidelines, safety features in the lab, types of chemical hazards, accidents & accident prevention

**Measurement:** scientific notation, metric system, accuracy and precision, significant digits, density

**Matter :** Properties, elements, compounds, and mixtures, matter classification, physical and chemical changes, energy and phase changes, chromatography

### **Periodic Table, Chemical Formulas and Naming**

organization of periodic table, composition of atoms, ions, isotopes, building chemical formulas, chemical naming: ionic and covalent compounds

**Moles:** mole definition/Avogadro's number, molar mass, mole calculations, percent composition, empirical and molecular formulas

### **Chemical Reactions**

evidence of a chemical reaction, endothermic and exothermic reactions, balancing equations, word equations, reaction types, predicting products

**Stoichiometry:** mole ratio, stoichiometric calculations, limiting reagents

**Atomic Theory:** electron orbitals, electron configurations, quantum numbers, valence

**Bonding:** electronegativity, periodic trends, intramolecular bonding: ionic, polar, and nonpolar bonding, intermolecular bonding: London forces, dipole, and hydrogen bonding, Lewis structures, molecular shapes, molecular polarity, brief intro to organic chemistry

**Solubility:** solution types, saturated solutions, concentration, dissolving/dissociation and conductivity, dilution, precipitation and using the solubility table, formula, complete, and net ionic equations, qualitative analysis