**Summer Review Session 2018- Revenson**

*Students will need the Chemistry Review Book, and a non-graphing calculator (TI-30 style or similar)*

This summer review session is designed to assist those who are retaking the Regents exam on August 16. This class is designed for those who have already met the lab requirements set forth by NYS to be eligible to sit for the regents exam. We will be building on prior knowledge from this past academic year by quickly re-teaching and reviewing the major topics for success on the NYS Regents Exam.

For the student to achieve the most from this review class, the following are essential: 1) active participation, 2) asking questions, and 3) reviewing material outside of the class meeting times.

Link to my web site with tutorials, power point presentations, videos, worksheets etc. on ALL topics of regents chemistry <http://www.revsworld.com/Chem/chem_websites.html>

I am out at a conference on Wednesday August 8. Options include an extra hour for 2 days or an extra 40 minutes on 3 days, We will finalize this during our first meeting July 31.

I can always be reached by e-mail at [Revensonm@mahopac,k12,ny.us](mailto:Revensonm@mahopac,k12,ny.us)

**Schedule of Topics: Room 239 10:00am to 11:55**

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| **Monday** | **Tuesday** | **Wednesday** | **Thursday** |
|  | **July 31**  ***Chapters 1+5***  **The Atom:**  \*subatomic particles \*electron configuration \*types of matter  **Periodic Table:** \*classifying elements \*information about the elements from the PT, \*element properties, \*groups and periods. | **August 1**  ***Chapters 2+3***  **Formulas and equations:**  \*Chemical symbols  \*Atoms and elements  \*Compounds and molecules  \*atoms and ions  \*Writing and naming compounds  \*Types of chemical reactions  \*equations and balancing  *TABLES E, J*  **Mathematics of formulas and equations:**  \*mathematics of balanced chemical equations  \*The Mole and chemical relationships | **August 2**  ***Chapter 4***  **Physical behavior of matter:**  \*Phases of matter  \*Temperature scales  \*Heat energy and calculations  \*Heating and cooling curves  \*Behavior of gases  \*Gas laws  \*Separation of mixtures  *TABLES A, B, G, H, I* |
| **August 6**  ***Chapter 6***  **Bonding:**  \*Energy and chemical bonds  \*Lewis electron dot structures  \*Octet rule  \*Ionic bonds  \*Covalent bonds: Polar, Nonpolar, coordinate  \*Metallic bonds  \*Molecular substances  \*Distinguishing bond types  \*Intermolecular forces vs. Intramolecular forces | **August 7**  ***Chapter 7+8***  **Properties of Solutions**  \*Solutions, suspensions, colloids  \*Solubility in aqueous solutions  \*Molarity and solution concentration  \*colligative properties  *TABLES F, G*  **Kinetics and Equilibrium**  \*Chemical Kinetics  \*Potential Energy diagram and graph  \*LeChatlier and outside effects on chemical equilibrium  \*Entropy and Enthalpy  \*Mass action equilibrium expression | **August 8**  ***Chapter 9***  **Oxidation and Reduction**  \*Oxidation and Reduction (REDOX)  \*Redox reactions  \*Half reactions  \*Electrochemical cells  \*Electrolytic cells | **August 9**  ***Chapter 10***  **Acids, Bases, and Salts**  \*Propertied of Acids, Bases, and salts  \*Arrhenius and Bronsted-Lowrey Theory  \*Reactions involving acids and bases  \*Acid-Base titration and calculations  \*acikdity, alkalinity, and pH of solutions  \*Acid-Base indicators  *TABLES K, L, M* |
| **August 13**  ***Chapters 12 + 11***  **Nuclear Chemistry**  \*Stability of nuclei  \*Nuclear particles  \*Nuclear equations  \*Transmutations  \*Fission reactions and nuclear power plants  \*Fusion reactions and the Sun  \*Half-life and calculations  *TABLES N,O*  **Organic Chemistry**  \*Organic vs. inorganic  \*Bonding of carbon atoms  \*Naming organic compounds  \*Functional groups  \*Organic reactions  *TABLES P, Q, R* | **August 14**  **Review of Chemistry Reference tables**  \*Information provided by each table on the Chemistry Reference Tables  *TABLES S, T*  **Regents exam review**  \*practice regents | **August 15**  **Regents exam review**  \*practice regents | **August 16**  **Regents Exam** |