**1st Quarter Schedul**e

Unit 1 Measurements

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Topic of Lesson | Homework that Night | Quiz Day |
| 8/24 | Safety, Basic Terms, Classification | Safety Contract and safety worksheet |  |
| 8/25 | Classification, P.T., Numbers | Physical vs. Chemical worksheet |  |
| 8/26 | Sig Figs, *Density* | P51 #80ab, 84abc, 85abc |  |
| 8/27 | Sig Figs, *Density* | P51 #83abc, 85defg *OR* *Honors p50 #72, 73, 74* | **2.2.2** |
| 8/28 | Review | Review Sheet |  |
| 8/31 | **Test Day!** | Define vocabulary Unit 2, in own words |  |

Objectives: **2.2.2** Analyze the evidence of chemical change and solubility rules

Unit 2 Atom

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Topic of Lesson | Homework that Night | Quiz Day |
| 9/1 | Atomic Theory | P112 #32, 38, 41 |  |
| 9/2 | Isotopes, *Average Atomic Mass (honors)* | P113 #60ab, 64ab *AND Honors 67* |  |
| 9/3 | Molar Mass, Converting | P112-113 #43, 45, 65ab, 74 | **1.1.1** |
| 9/4 | Converting, Nuclear Chemistry, Half-life | P347 #98a, 99b, 101a, 103a |  |
| 9/8 | Law of Conservation of Mass | P836-837 #38, 69 | **2.2.4** |
| 9/9 | Review | P347 #98b, 99c, 101b, 103b | **1.1.4** |
| 9/10 | Review | Review Sheet |  |
| 9/11 | **Test Day!** | Define vocabulary Unit 3, in own words |  |

Objectives: **1.1.1** Analyze the structure of atoms, isotopes, and ions.

**2.2.4** Analyze the stoichiometric relationships inherent in a chemical reaction.

**1.1.4** Explain the process of radioactivity decay using nuclear equations and half-life.

Unit 3 Electrons and Periodicity

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Topic of Lesson | Homework that Night | Quiz Day |
| 9/14 | Bohr’s Model, Emission Spectrum | P146 #31, 33, 38 |  |
| 9/15 | Electron Configuration | P146 #41, 49, *AND Honors 65* |  |
| 9/16 | Electron Configuration | P146-147 #59, 78, 80ab, *AND Honors 72* | **1.1.2, 1.1.3** |
| 9/17 | Periodic Table History and Family Names | P174 #28, 29, 31, 33 |  |
| 9/18 | Periodic Trends | P174 #26, 30, 32, 36 |  |
| 9/21 | Periodic Trends | P175 #57, 59, 60, 61 | **1.3.1** |
| 9/22 | Review | P175 #62, 63, 65, 67 | **1.3.2** |
| 9/24 | Review | Review Sheet |  |
| 9/25 | **Test Day!** | Define Vocabulary Unit 4, in own words p235 |  |

Objectives: **1.1.2** Analyze an atom in terms of the location of electrons.

**1.1.3** Explain the emission of electromagnetic radiation in spectral form in terms of the Bohr model.

**1.3.1** Classify the components of a periodic table (period, group, metal, metalloid, nonmetal, transition)

**1.3.2** Infer the physical properties (atomic radius, metallic & nonmetallic characteristics) of an element based on its position on the PT.

Unit 4 Ionic and Metallic Bonding

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Topic of Lesson | Homework that Night | Quiz Day |
| 9/28 | Metallic and Ionic Bonding Properties | P236 #47, 60, 80, 81 |  |
| 9/29 | Naming and Formula Writing | P237 #74, 75 |  |
| 9/30 | Percent Composition | P348 #137, 141 | **1.2.1, 1.2.2, 1.2.5** |
| 10/1 | Review | P237 #88, 90 | **1.2.4 and 2.2.5** |
| 10/2 | Review | Review Sheet |  |
| 10/5 | **Test Day!** | Define Vocabulary Unit 5, in own words p271 |  |

Objectives: **1.2.1** Compare the relative strengths of ionic, covalent, and metallic bonds.

**1.2.2** Infer the type of bond and chemical formula between atoms.

**1.2.5** Compare the properties of ionic, covalent, metallic, and network compounds.

**1.2.4** Interpret the name and formula of compounds using IUPAC convention.

**2.2.5** Analyze quantitatively the composition of a substance (percent composition and hydrates).

Unit 5 Covalent Bonding

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Topic of Lesson | Homework that Night | Quiz Day |
| 10/6 | Covalent Properties, Lewis Structure, Resonance, Geometry | P272 #100 |  |
| 10/7 | Geometry, Intermolecular Forces, Naming | P274 #115abc, 123ab |  |
| 10/8 | Empirical and Molecular Formulas | P348-349 #138, 144 | **1.2.1, 1.2.2 and 1.2.5** |
| 10/9 | Model Activity | P349 #149, 150 | **1.2.3, 1.2.4 and 2.2.5** |
| 10/12 | Review | Review Sheet |  |
| 10/13 | **Test Day!** | Define vocab Unit 6, in own words p303&p377 |  |

Objectives:

**1.2.1** Compare the relative strengths of ionic, covalent, and metallic.

**1.2.2** Infer the type of bond and chemical formula formed between atoms.

**1.2.5** Lewis Diagrams and polarity of molecule.

**1.2.3** Compare inter- and intra- particle forces.

**1.2.4** Interpret the name and formula of compounds using IUPAC.

**2.2.5** Analyze quantitatively the composition of a substance (empirical formula, molecular formula, hydrates)

Unit 6 Reactions and Stoichiometry

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Topic of Lesson | Homework that Night | Quiz Day |
| 10/14 | Balancing, Types of Reactions, Predicting Products | P304-305 #71, 75, 80 |  |
| 10/15 | Predicting Products | P305 #85ab, 86cd, 87ab |  |
| 10/16 | Stoichiometry | P379 #61, 63 *OR Honors p379 #61, 64* | **2.2.2** |
| 10/19 | Review for Midterm Exam | Midterm Exam Review Sheet |  |
| 10/20 | Take Midterm Exam | Practice Problems for 2.2.3 |  |
| 10/21 | Stoichiometry, *Honors Limiting Reactant* | P379 #64, 66, 67 *OR Honors p380 #69, 82* | **2.2.3** |
| 10/22 | Stoichiometry, *Honors Percent Yield* | P380 #69,70,73 *OR Honors p381 #83ab,84,87acd* | **2.2.4** |
| 10/26 | Review | Review Sheet |  |
| 10/27 | **Test Day!** | Define Unit 7 Vocab., in own words |  |

Objectives:

**2.2.2** Analyze the evidence of chemical change

**2.2.3** Analyze the law of conservation of matter and how it applies to various types of chemical equations.

**2.2.4** Analyze the stoichiometric relationships inherent in a chemical reaction.

**\*\*\*All dates are subject to change\*\*\***

*There will not be a lot of time for in-class review for the midterm. The midterm will count for 20% of the student’s 1st quarter grade. It is encouraged that students come to tutoring as soon as they realize they do not understand a concept. They may also look up & watch the lessons on Mrs. Jean Davis’ YouTube channel: DavisAPChem.*