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| **Atomics** | | | | **Score:\_\_\_\_\_**  **Letter:\_\_\_\_\_** |
| **Advanced (A)** | **Intermediate (B)** | **Basic (C)** | **Introductory (D)** |
| * \_\_\_\_\_Lewis dot of compounds * \_\_\_\_polar molecule * \_\_\_\_\_ (HC) 3D VSEPR structure * \_\_\_\_\_ (HC) Hybridization of central atom   \_\_\_\_/4 | * \_\_\_\_\_Identifying Bond Types * \_\_\_\_\_Atypical electron configurations * \_\_\_\_\_ Spin Diagrams * \_\_\_\_\_(HC) Calculation of formal charge of atoms/molecule * \_\_\_\_\_(HC) Quantum Numbers   \_\_\_\_/3 | * \_\_\_\_\_Lewis dot of atom/ion * \_\_\_\_\_ Electron Configurations * \_\_\_\_\_Bohr Models of atoms * \_\_\_\_\_Polar bond * \_\_\_\_\_ (HC) formal charge of atom   \_\_\_\_/2 | * \_\_\_\_\_ p+, e-, n0 * \_\_\_\_\_Valence Electrons * \_\_\_\_Polar Definition * \_\_\_\_\_ (HC) dipole definition   \_\_\_\_/1 |

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| **Trends** | | | | **Score: \_\_\_\_\_**  **Letter:\_\_\_\_\_** |
| **Advanced (A)** | **Intermediate (B)** | **Basic (C)** | **Introductory (D)** |
| Utilization of trends to ID element   * \_\_\_\_\_Atomic radius * \_\_\_\_\_Ionic radius * \_\_\_\_\_Electro-negativity * \_\_\_\_\_Ionization energy * \_\_\_\_\_Periodic table location   \_\_\_\_/4 | Explanation of Periodic trends with examples   * \_\_\_\_\_Atomic radius * \_\_\_\_\_Ionic radius * \_\_\_\_\_Electro-negativity * \_\_\_\_\_Ionization energy * \_\_\_\_\_Periodic table location   \_\_\_\_/3 | Explanation of Periodic trends   * \_\_\_\_\_Atomic radius * \_\_\_\_\_Ionic radius * \_\_\_\_\_Electro-negativity * \_\_\_\_\_Ionization energy * \_\_\_\_\_Periodic table location   \_\_\_\_/2 | Definition of Periodic trends   * \_\_\_\_\_Atomic radius * \_\_\_\_\_Ionic radius * \_\_\_\_\_Electro-negativity * \_\_\_\_\_Ionization energy * \_\_\_\_\_Periodic table location   \_\_\_\_/1 |

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| **Nuclear Chemistry** | | | | **Score:\_\_\_\_**  **Letter:\_\_\_\_** |
| **Advanced** | **Intermediate** | **Basic** | **Introductory** |
| Writing reactions for and explaining   * \_\_\_\_\_Alpha * \_\_\_\_\_Beta * \_\_\_\_\_Positron Emission * \_\_\_\_\_ Electron Capture   \_\_\_\_\_/4 | * \_\_\_\_\_How E=mc2 is explained through nuclear chemistry * \_\_\_\_\_ Nuclear vs. Combustion   \_\_\_\_\_/3 | * \_\_\_\_\_ Explanation of atomic force   \_\_\_\_\_/2 | * \_\_\_\_\_Nuclear vocab   \_\_\_\_/1 |

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| **Chemical Reactions** | | | | **Score:\_\_\_\_\_**  **Letter:\_\_\_\_\_** |
| **Advanced (A)** | **Intermediate (B)** | **Basic (C)** | **Introductory (D)** |
| * \_\_\_\_\_Using Bond energy * \_\_\_\_\_Balancing chemical equations * \_\_\_\_\_(HC) Hess’s law   \_\_\_\_/4 | * \_\_\_\_\_Predicting products * \_\_\_\_\_Solubility   \_\_\_\_/3 | * \_\_\_\_\_Naming/ creating ionic compounds * \_\_\_\_\_ Naming/ creating covalent compounds   \_\_\_\_/2 | * \_\_\_\_\_Types of chemical reactions * \_\_\_\_\_ Vocabulary   \_\_\_\_/1 |

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| **Waves** | | | | **Score: \_\_\_\_\_**  **Letter: \_\_\_\_\_** |
| **Advanced (A)** | **Intermediate (B)** | **Basic (C)** | **Introductory (D)** |
| * \_\_\_\_\_Wave equations (2 steps) word application problems * \_\_\_\_\_Interactions of EMR with matter   \_\_\_\_\_/4 | * \_\_\_\_\_Wave equations (2 steps) * \_\_\_\_\_photoelectric effect   \_\_\_\_\_/3 | * \_\_\_\_\_Wave equations (1 step) * \_\_\_\_\_ General EM spectrum and effects therein   \_\_\_\_\_/2 | * \_\_\_\_\_Parts of a wave * \_\_\_\_\_Vocab   \_\_\_\_\_/1 |

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| **Moles/stoichiometry** | | | | **Score: \_\_\_\_\_**  **Letter: \_\_\_\_\_** |
| **Advanced** | **Intermediate** | **Basic** | **Introductory** |
| * \_\_\_\_\_Excess Reagent calculations * \_\_\_\_\_Molecular Formula * \_\_\_\_\_ (HC) Application of EF and MF   \_\_\_\_\_/4 | * \_\_\_\_\_Limiting Reagent * \_\_\_\_\_Empirical Formula   \_\_\_\_\_/3 | * \_\_\_\_\_2 step molar conversions * \_\_\_\_ basic stoichiometry * \_\_\_\_\_Percent composition   \_\_\_\_\_/2 | * \_\_\_\_\_1 step molar conversions * \_\_\_\_\_ Percent error * \_\_\_\_\_ percent yield   \_\_\_\_\_/1 |

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| **Solutions** | | | | **Score:\_\_\_\_\_**  **Letter\_\_\_\_\_** |
| **Advanced** | **Intermediate** | **Basic** | **Introductory** |
| * \_\_\_\_\_Ion concentration * \_\_\_\_\_Solution stoichiometry * \_\_\_\_\_word problem colligative calculations * \_\_\_\_\_(HC) hydrogen bonding   \_\_\_\_\_/4 | * \_\_\_\_\_HOW things dissolve * \_\_\_\_\_solubility curve * \_\_\_\_\_ colligative explanation   \_\_\_\_\_/3 | * \_\_\_\_\_Net ionic equation * \_\_\_\_\_Solution making (g needed, etc.) * \_\_\_\_\_basic colligative calculations   \_\_\_\_\_/2 | * \_\_\_\_\_Molarity (mole/L) * \_\_\_\_\_ concentration measurements * \_\_\_\_\_Ionic vs covalent dissolution   \_\_\_\_\_/1 |

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| **Acids and Bases** | | | | **Score: \_\_\_\_\_**  **Letter\_\_\_\_\_** |
| **Advanced** | **Intermediate** | **Basic** | **Introductory** |
| * \_\_\_\_\_Neutralization   \_\_\_\_\_/4 | * \_\_\_\_\_pH, POH, [OH-], [H3O+]   \_\_\_\_\_/3 | * \_\_\_\_\_Acid/base reactions * \_\_\_\_\_Acid/Base Strength   \_\_\_\_\_/2 | * \_\_\_\_\_Naming Acids * \_\_\_\_\_Naming Bases   \_\_\_\_\_/1 |

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| **Gas laws** | | | | **Score: \_\_\_\_\_**  **Letter:\_\_\_\_\_** |
| **Advanced** | **Intermediate** | **Basic** | **Introductory** |
| * \_\_\_\_\_KMT explaining gas laws * \_\_\_\_\_Phase diagrams * \_\_\_\_\_Application gas law stoichiometry   \_\_\_\_/4 | * \_\_\_\_\_Combined gas laws * \_\_\_\_\_ideal gas law * \_\_\_\_\_Gas law stoichiometry   \_\_\_\_\_/3 | * \_\_\_\_\_Basic gas laws   \_\_\_\_\_/2 | * \_\_\_\_\_KMT definition * \_\_\_\_\_vocab   \_\_\_\_\_/1 |

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| **Kinetics and Equilibrium General Chemistry** | | | | **Score: \_\_\_\_**  **Letter:\_\_\_\_** |
| **Advanced** | **Intermediate** | **Basic** | **Introductory** |
| * \_\_\_\_\_Keq applications * ­\_\_\_\_\_ Q applications * \_\_\_\_\_ Using experimental data to determine rate law and related information   \_\_\_\_\_/4 | * \_\_\_\_\_Keq calculations * \_\_\_\_\_ Q calculations * \_\_\_\_\_Calculations with rate law   \_\_\_\_\_/3 | * \_\_\_\_\_Le Chatelier’s Principle * \_\_\_\_\_ Rate law * \_\_\_\_\_ Identifying order of reaction   \_\_\_\_\_/2 | * \_\_\_\_Dynamic Equilibrium * \_\_\_\_Reaction rate   \_\_\_\_/1 |

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| **Kinetics and Equilibrium Honors Chemistry** | | | | **Score: \_\_\_\_**  **Letter:\_\_\_\_** |
| **Advanced** | **Intermediate** | **Basic** | **Introductory** |
| * \_\_\_\_Application of Ksp * \_\_\_\_\_Application of Keq and calculations * \_\_\_\_\_ Common Ion Effect calculations * \_\_\_\_\_ Using experimental data to determine rate law and related information   \_\_\_\_\_/4 | * \_\_\_\_\_Ksp Calculations * \_\_\_\_\_Q calculations * \_\_\_\_\_Calculations related to rate law * \_\_\_\_ ICE table   \_\_\_\_\_/3 | * \_\_\_\_\_Le Chatelier’s Principle * \_\_\_\_\_Keq calculations * \_\_\_\_ Rate law   \_\_\_\_\_/2 | * \_\_\_\_Dynamic Equilibrium * \_\_\_\_Reaction rate * \_\_\_\_ Identifying order of reaction * \_\_\_\_ Activation Energy   \_\_\_\_/1 |