**Reference Table Scavenger Hunt Answer KEY**

1. pentene

*Tables P & Q*

1. 

*Tables Periodic Table (or Table S), Tables N & O*

1. Na is a Group 1 element, and therefore soluble with (PO43-‑)

Ni is not an exception under the insolubility with (CrO42-)

*Table F*

1. Standard Temperature and Pressure

P = 101.3 kPa or 1 atm; T = 273K or 0oC

*Table A*

1. Acids: HCl – hydrochloric acid;

HNO2 – nitrous acid;

HNO3 – nitric acid;

H2SO3 – sulfurous acid;

H2SO4 – sulfuric acid;

H3PO4 – phosphoric acid;

H2CO3 – carbonic acid;

CH3COOH – ethanoic acid

Bases: NaOH – sodium hydroxide;

KOH – potassium hydroxide;

Ca(OH)2 – calcium hydroxide;

NH3 – ammonia

*Table K & L*

1. acetate ion

*Table E*

1. approximately 62-63 grams

*Table G*

1. 266K (freezing point = melting point)

*Table S*

1. J/g – the amount of heat needed per gram to melt a substance

*Tables B & D*

1. mol

*Table D*

1. approximately 38kPa

*Table H*

1. q = mHv = (25g)(2260J/g) = **56,500J**

*Tables B & T*

1. milli- *Table C*
2. NH3 *Table L*
3. (PO4-3) *Table E*
4. ethanoic (acetic) acid *Table K*
5.  OR  *Table O*
6. 1.592 x 105 years (159,200 years) *Table N*
7. exothermic *Table I*
8. 196.967 amu *Periodic Table*
9. 48.83 kJ *Table I*
10. CnH2n-2 For each C atom (n), there are (2n-2) H atoms

*Table Q*

1. Electronegativity = 4.0 *Table S*
2. Β+ (positron emission) *Table N*
3. 403 kJ/mol *Table S*
4. Al – it is higher on the chart than Zn *Table J*
5. 34 *Periodic Table or Table S*
6. 100. pm *Table S*
7. +1 *Periodic Table*
8. phenolphthalein *Table M*
9. 2-8-8-1 *Periodic Table*
10. approximately 87oC *Table H*
11. atomic radii decreases *Table S*
12. Yes – it is a transition metal (in Groups 3-12)

*Periodic Table*

1. It won’t happen! Sn is higher on chart than Cu, and therefore wants to oxidize (lose electrons), NOT reduce (gain electrons)

*Table J*

1. 2260 J/g *Table B*
2. Yes - Al is more reactive than H *Table J*
3. 7.287 g/cm3 *Table S*
4. a.) EN difference = 3.2 – 2.6 = 0.8 *Table S*

b.) Polar covalent bond due to the EN difference/unequal “pull” (draw it out if you need to!!)

c.) Non-polar molecule due to symmetry within molecule (draw it out if you need to!!)

1. number of moles = given ,ass/gram formula mass *Table T*
2. *Table T*

ppm = [grams solute/grams solution] x 1 000 000

ppm = [25/(200+25)] x 1 000 000 = **111,111 ppm**

1. *Table T*

% error = [(measured value – accepted value)/accepted value] x 100

% error = [(10.1g – 10.3 g)/10.3 g] x 100 = **-1.94%**

1. *Tables C & T*

q = mC∆T

q = (50g)(4.18 J/goC)(57oC – 45oC) = **2508 J**