**Reference Table Scavenger Hunt Answer KEY**

1. pentane

*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. NaOH – sodium hydroxide; KOH – potassium hydroxide; Ca(OH)2 – calcium hydroxide;

NH3 – ammonia

*Table L*

1. acetate ion

*Table E*

1. approximately 5 grams

*Table G*

1. 54K (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 = (20g)(2260J/g) = **45,200J**

*Tables B & T*

1. milli- *Table C*
2. NH3 *Table L*
3. (MnO4-) *Table E*
4. ethanoic (acetic) acid *Table K*
5.  OR  *Table O*
6. 2.44 x 104 years (24,400 years) *Table N*
7. exothermic *Table I*
8. 107.868 amu *Periodic Table*
9. 48.83 kJ *Table I*
10. HCl – hydrochloric acid; HNO3 – nitric acid; H2SO4 – sulfuric acid; H3PO4 – phosphoric acid; H2CO3 – carbonic acid; CH3COOH or HC2H3O2 – acetic acid

*Table K*

1. CnH2n-2 For each C atom (n), there are (2n-2) H atoms

*Table Q*

1. Electronegativity = 3.2 *Table S*
2. β- (beta emission) *Table N*
3. 403 kJ/mol *Table S*
4. Al – it is higher on the chart than Zn *Table J*
5. 52 *Periodic Table or Table S*
6. 112 pm *Table S*
7. -2, +4, or +6 *Periodic Table*
8. phenolphthalein *Table M*
9. 2-8-8-1 *Periodic Table*
10. approximately 85oC *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. 7.31 g/cm3 *Table S*
4. a.) EN difference = 3.2 – 2.6 = 0.6 *Table S*

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

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

1. *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**