

## GUIDELINES TO TABLES

Tables are instrumental in conveying large amounts of information that may be repetitive if described by writing in paragraph form. Tables can describe the amount of substances added to an experiment, a sequence of events that took place in an experiment, raw data and derived data. Tables are considered self standing if they have two main components: a descriptive title and footnotes to explain how material in the columns is derived.

### Guidelines and examples explained:

- 1) Tables should be sequential. If a table is the data that is used to build a figure, then it must come before the figure.
- 2) If you use a table to describe a procedure in your materials and methods, then this will be your first table and it will be referred to in the materials and methods section as (see table 1) at the end of a sentence. For example: *the compounds were added to each test tube (see table 1).*
- 3) The title must be descriptive enough to let the reader know definitely what the data pertains to.
- 4) In the example, footnotes "A" and "B" describe quantities used in the experiment (see table 1). It can also be used to describe mathematical equations used to derive data found in the column (see table 2).
- 5) In the example, since "X,O,RL,RH" are already symbols, they just need to be explained in the footnote and no extra symbol needed (see table 1).

**Examples are on the next two pages - -**

**Table 1: The effect of ionization energy in single-replacement reactions involving metal nitrates.**

compound <sup>A</sup>	Metals Added <sup>B</sup>					
	Cu	Pb	Fe	Mg	Al	Zn
<b>Cu(NO<sub>3</sub>)<sub>2</sub></b>	X	RL	RH	RL	O	RH
<b>Pb(NO<sub>3</sub>)<sub>2</sub></b>	O	X	RH	RH	O	RH
<b>Fe(NO<sub>3</sub>)<sub>2</sub></b>	O	O	X	O	RL	RH
<b>Mg(NO<sub>3</sub>)<sub>2</sub></b>	O	O	O	X	O	O
<b>Al(NO<sub>3</sub>)<sub>2</sub></b>	O	RH	O	RH	X	O
<b>Zn(NO<sub>3</sub>)<sub>2</sub></b>	O	O	O	RL	O	X

<sup>A</sup> = Ionic compounds 1ml of a 0.5M solution

<sup>B</sup> = 0.5g of each metal (top row) were added to the corresponding ionic solutions (compound column)

**X** = Metal added matches the nitrate solution – No reaction

**O** = No Reaction

**RL** = Reaction in which the metal added (e.g. ionization energy) is lower than the ionization energy of the metal in the nitrate.

**RH** = Reaction in which the metal added (e.g. ionization energy) is higher than the ionization energy of the metal in the nitrate.

*~~~~~Insert page breaks between figures and tables~~~~~*

## Example 2

**Table 2: Determining the velocity of the Nerf® Vortex at 414Kpa.**

Trials	Height <sup>A</sup>	Time <sup>B</sup>	Distance <sup>C</sup>	Velocity <sup>D</sup>	Avg <sup>E</sup>
1	0.8m	0.40s	17.4m	43.5m/s	41.2m/s
2			14m	35.1m/s	
3			18m	45m/s	

<sup>A</sup> = The height was determined by measuring the distance the barrel of the cannon was parallel to the ground, it was the same for all trials

<sup>B</sup> = Time is determined by how long it takes the Nerf® Vortex to hit the ground by free fall. The equation  $D = \frac{1}{2} at^2$  was used.

<sup>C</sup> = Distance was determined by how far the Nerf® Vortex was air born before touching the ground. Cannon was fired at 60PSI (414Kpa using [translatorcafe.com](http://translatorcafe.com)).

<sup>D</sup> = Velocity determined using  $V = D \div T$

<sup>E</sup> = Determined by summing velocity column and dividing by 3