DRAWING TABLES

Tables are a convenient way of recording data. Nevertheless they do follow certain conventions.

The results of an investigation on the effect of light on the cyclosis of chloroplasts

Title of each variable at the top of each column

Units of measurement after a diagonal line, the "*solidus*". Note the degrees of precision of the instrument.

Light intensity / lx	Distance moved / μm ± 0.1μm	Time taken / s ± 0.1s	Speed / μm s^{-1} ± 0.1μms^{-1}
1200	12.5	6.1	2.1
1500	12.5	3.7	3.4
1900	25.0	7.3	3.4
2000	25.0	7.3	3.4
2500	25.0	7.0	3.6

Independent variables in the first column arranged in ascending order

Dependent variables in succeeding columns

The data can even be processed in the table

Pure dimensionless numbers with decimal points in line. All to the same number of significant figures

Degrees of precision

- Apply a simple rule. The degree of precision is equal to the smallest graduation on the instrument.
- You may need to estimate the degree of precision sometimes especially with stop watches. Digital stop watches are said to be accurate to 0.01s but your reaction time is only 0.1s.
- For electronic probes you may have to go to the manufacturers specifications (on their web site or in the instructions manual.
- Some instruments have not degrees of precision because their reading is relative.

Tables can be arranged horizontally too, to save space

The result of pig red blood cells exposed to different salt concentrations

Salt concentration / % ± 0.1%	0	0.1	0.3	0.5	0.7	0.9	2.0	10.0
Colorimeter reading / % transmission	2	25	25	25	50	55	62	42

MORE COMPLEX TABLES

Give your table a title which concisely states what the experiment is about.

The rate of uptake of water by a leafy shoot under different conditions

Use the « *solidus* » to separate the title from the units

……dependent variable next

Independent variable **first**……

Titles of variables at the top of each column.

Units at the top of the column. **Use SI units.**

	WITHOUT HAIR DYER			WITH HAIR DRYER		
TRIAL	DISTANCE / cm	TIME TAKEN / min	SPEED / cm min^{-1}	DISTANCE / cm	TIME TAKEN / min	SPEED / cm min^{-1}
1	10	5.18	1.93	10	2.68	3.73
2	6	2.71	2.21	5	1.80	2.78
3	10	5.24	1.91	6	1.92	3.13
4	15	7.60	1.97	10	2.75	3.64
5	5	2.65	1.88	10	2.55	3.92
		AVERAGE SPEED	1.98		AVERAGE SPEED	3.44

No units here

Draw straight lines. **Use a ruler !**

Time is recorded in one unit ie minutes or seconds not both.
Note : 2 min 30s = 2.5 min **not** 2.30 min

All decimal points should be in line.

Data presented in decimals to as many significant places as your instruements will permit.

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