## Teacher Activity C: Showing units in tables and graphs

On a graph, each axis should include a label that shows the name of the variable and its unit. The same applies to the heading of each column in a table of data. There are different ways of representing this.
a) The following shows data for a trolley rolling down a ramp. Which of the two versions do you think is preferable? Why?

## Version 1

| Time (s) | Distance (cm) |
| :---: | :---: |
| 0.0 | 0 |
| 0.2 | 2.4 |
| 0.4 | 9.1 |
| 0.6 | 21.7 |
| 0.8 | 37.2 |
| 1.0 | 59.3 |
| 1.2 | 85.6 |



## Version 2

| Time/s | Distance/cm |
| :---: | :---: |
| 0.0 | 0 |
| 0.2 | 2.4 |
| 0.4 | 9.1 |
| 0.6 | 21.7 |
| 0.8 | 37.2 |
| 1.0 | 59.3 |
| 1.2 | 85.6 |


b) How would you indicate the unit for density on a table or graph in 11-16 science? What are your reasons?

| 1) Density $\left(\mathrm{g} / \mathrm{cm}^{3}\right)$ | 3) Density in $\mathrm{g} / \mathrm{cm}^{3}$ | 5) Density $/ \mathrm{g} / \mathrm{cm}^{3}$ |
| :--- | :--- | :--- |
| 2) Density $\left(\mathrm{g} \mathrm{cm}^{-3}\right)$ | 4) Density in $\mathrm{g} \mathrm{cm}^{-3}$ | 6) Density $/ \mathrm{g} \mathrm{cm}^{-3}$ |

Further information: The Language of Mathematics in Science: A Guide to Teachers of 11-16 Science, Section 3.1 Using tables to collect and present data (pp 23-24) and Section 4.6 Labels and units (p 39)

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