

**Y7 Developing the Gateacre Scientist
Knowledge Organiser**

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| --- | --- |
| **Key Term** | **Definition** |
| Bunsen | A tool used to provide a heat source |
| Variable | Things that can change |
| Independent Variable | The variable that you change |
| Dependent Variable | The variable that you measure |
| Control Variable  | The variables that you keep constant |
| Categoric Variable | A variable with no in-between options |
| Continuous Variable | A variable that can have decimal results |
| Range | The smallest to the largest value |
| Precision | The smallest change that can be measured |
| Anomaly | A result that doesn’t fit the pattern |
| Reliability | A measure of the accuracy of your experiment |
| Proportionality  | One factor in an experiment affects another |
| Directly Proportional | Both factors will increase by the same proportion |
| Inversely Proportional | One factor will increase as the other decreases |

**Bar chart -** categoric data (colours, names, qualitative)



Bunsen burners are a useful tool in Science, however they can be very dangerous. It’s important that you wear safety glasses, keep hair tied back and always use a heat proof mat.

**Dependent variable**

**Independent variable**

**Line graph -** continuous data (height, weight, numbers, quantitative)

Inversely Proportional Proportional

Directly Proportional

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Ball | Bounce /cm | Bounce 2 /cm | Bounce 3/cm | Average/cm |
| A | 2 | 2 | 2 | 2 |
| B | 3 | 4 | 5 | 4 |
| C | 6 | 6 | 6 | 6 |
| D | 7 | 7 | 1 | 7 |
| E | 10 | 10 | 10 | 10 |



When calculating the mean, add your results us and divide by the number you’ve got. **REMEMBER** - if you have an anomalous result, don’t include it!

**Science practical checklist:**

* Hypothesis (What do you think will happen)
* Clear method (Step by step, bullet pointed)
* Results table (With units and labels for the headers)
* Results recorded to the correct precision
* Graph constructed (Labelled axis, with units)
* Conclusion written (**HyPE** – **Hy**pothesis proven? **P**attern stated with supporting **E**vidence?)