## Stonelaw High School

Faculty of Science
Line Graphs

Line graphs are used when there are numbers on both axes.
https://www.youtube.com/watch?v=QsbwOQWQqkE
Which axis?

- The first column in the results table always goes on the $x$ (bottom) axis as this is the independent variable
- The second column in the results table always goes on the y (up and down) axis as this is the dependent variables and what has been measured to gain the results

To draw your graph... remember to SLURP!

## Scales

- Scales must go up by the same amount each time to form a regular scale
e.g $0,2,4,6,8,10$ NOT copied from the table such as $3,6,7,8,10$
- The scales should go up in $1 \mathrm{~s}, 2 \mathrm{~s}, 5 \mathrm{~s}$ or 10 s to make it easier to accurately plot the points
- To work out your scale look at the biggest value and the smallest value and ensure your scale starts below the smallest value and finishes above the highest value
- Try each scale option to see which one fits
- Your scale should use at least half of the graph paper provided


## Labels

- Labels must be copied exactly from the headings in the table
- Remember to take the units too

Plot

- Plot a small $x$ or a small dot for each point by going along the bottom $x$ axis then going up the $y$ axis
- Take your time to make sure each point is exactly where it should be

Drawing the line

- Join the points you plot dot to dot
- Remember to use a ruler
- Only connect to origin if you have a $(0,0)$ value


## Example

Plot a line graph to show the effect of time on the volume of dough.

| X-axis | Y-axis |
| :---: | :---: |
| Time <br> (minutes) | Volume of dough <br> $\left(\mathrm{cm}^{3}\right)$ |
| 10 | 8 |
| 20 | 14 |
| 30 | 22 |
| 40 | 26 |
| 50 | 28 |
| 60 | 28 |



