


Learning Services: IT Guide

Basic Excel

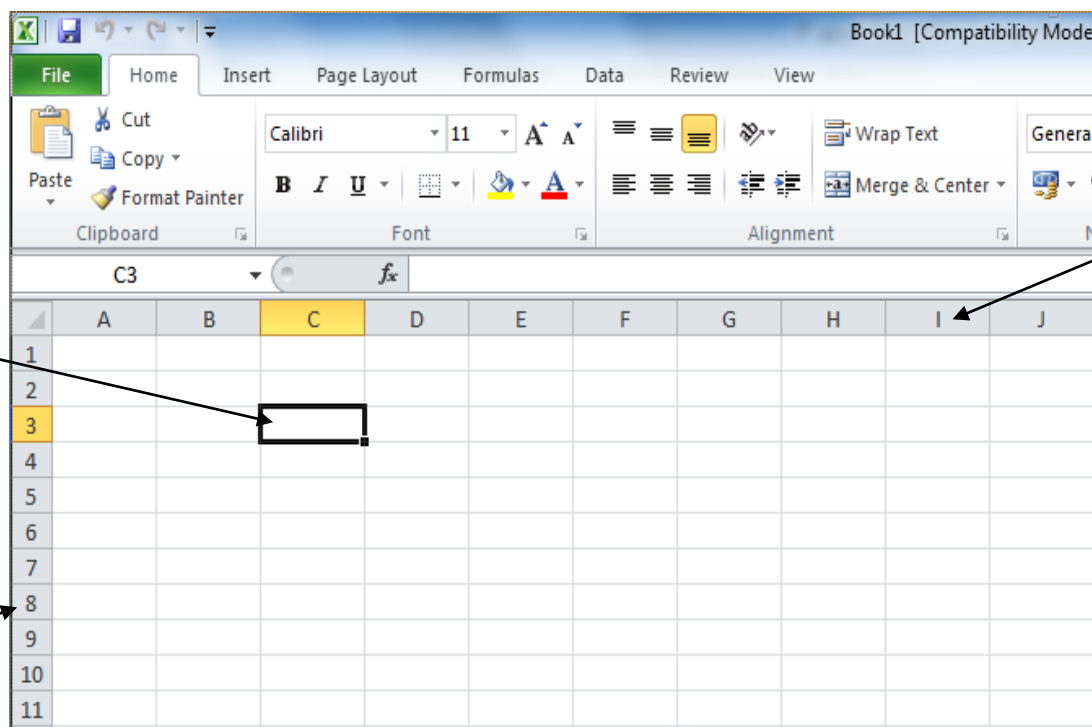
Excel 2010 is a spreadsheet software program. You can create worksheets, tables, charts, and graphs, plot a timetable, and manipulate accounts and statistics. This guide is an introduction and will show you how to:

1. Edit a worksheet;
2. Use general formatting;
3. Use formulas and functions;
4. Create Graphs and Charts.

Opening Excel 2010

To open the Excel application - click on the **Start button**,  select **Programs - Microsoft Office** – then **Microsoft Office Excel 2010**. The Excel spreadsheet consists of cells that are arranged into columns, which are lettered, and rows that are numbered so each cell has its own unique reference.

Click on to a cell and you can immediately start to input data.

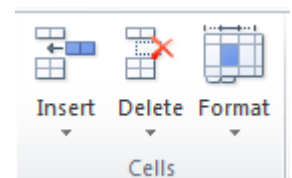


Editing a worksheet

The standard format you see when you open Excel can be customised in many ways.

❖ **To make the columns or rows wider or smaller**

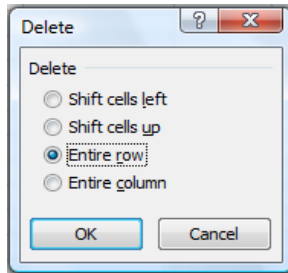
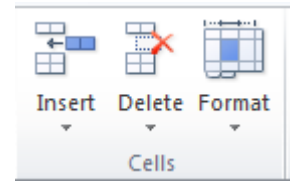
Highlight the column or row; Select the **Home** tab, go to the **Cells** group and click on **Format**. From here you will get the option to change the row height or column width. Either decrease/increase the number depending on what you require and select OK.



Or you can try clicking in the column heading (A, B, C etc) and double click on the border. Excel will give you the best fit for your column. You can also simply click and drag the edge of the grey box to the required size.

❖ **To Insert/Delete rows, columns, and cells**

To insert a row/ column - highlight the row below where you wish to insert the new row, for a column highlight the column to the right of the new one From the **Home** tab go to the **Cells** group and **Insert**. choose **Insert Sheet Column** or **Insert Sheet Row**



To delete the contents of a cell, row or column - highlight and press delete.

To delete the actual row (and not just the data in it) - highlight it, go to **Home, Cells** and **Delete** and select **Entire row**. Follow the same process to delete a column.

Or for speed right click your mouse on the number or letter of the row or column that is no longer needed and select delete from your drop down menu.

General Formatting

❖ **Editing**

To change the data in a cell double click in the cell and you will then be able to edit it.

❖ **Merging Cells**

To merge cells, highlight the cells you want to merge and from the **Home** tab click on the merge icon.



❖ **To change the colour of cells**

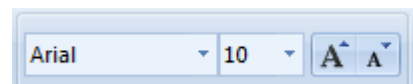
Highlight the cells you want to change, from the **Home** tab, go to the **Font** group choose the paint pot icon and select the colour you want.



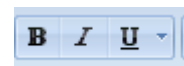
Another way of doing this is to right click your mouse on the cell(s) you wish to change colour and a formatting bar will appear where you can select the paint pot.

❖ **Font Size, style and Colour**

Click on the cell you wish to type in. From the **Home** tab Change your font style and size from the icons in the **Font** toolbar.



To make text bold or in italic choose from the enhancement buttons

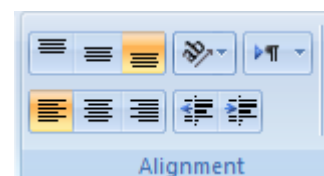


To change the colour of the text highlight it and go to the Font Colour icon to select the colour.



❖ **To justify, Centre or Change Orientation of text**

Highlight the text, from the **Home** tab choose the alignment button you require.



❖ **To Sort data**

To put a list of names in alphabetical order, highlight them, from the **Home** tab, go to the **Editing** group and select **Sort & Filter**. This will give the option to sort in ascending or descending order, or you can do a custom sort over several columns.



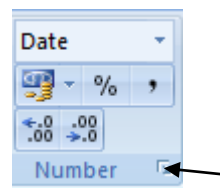
❖ **To convert numbers to currency**

To change numbers to currency in your work sheet, select the relevant cells, From the **Home** tab go to the **Number** group and use the **Currency** icon. This will convert numbers to pounds sterling, euros, US. dollars etc.

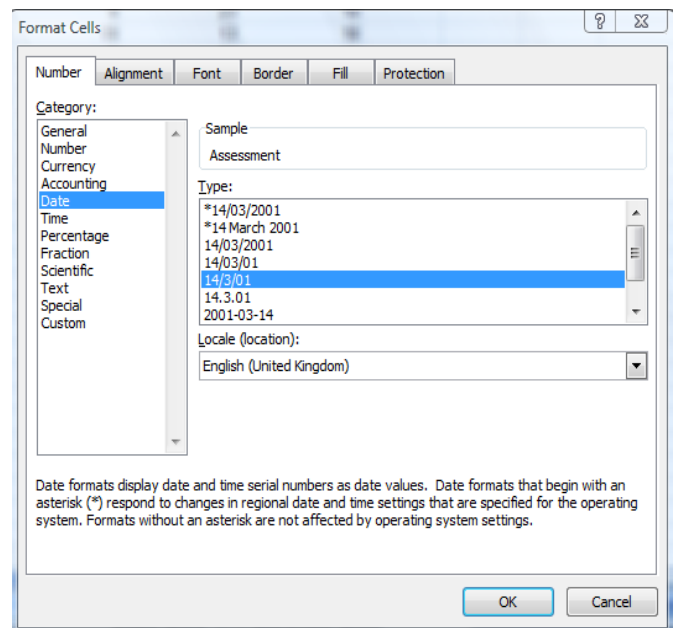


❖ **Adding Dates**

To format a column or cells so that it shows numbers in date format highlight the required area and from the **Home** tab click on the bottom right hand corner of the **Number** group.

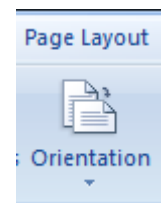


From the Number tab select **Date** and then from the right hand column select the style that you want.



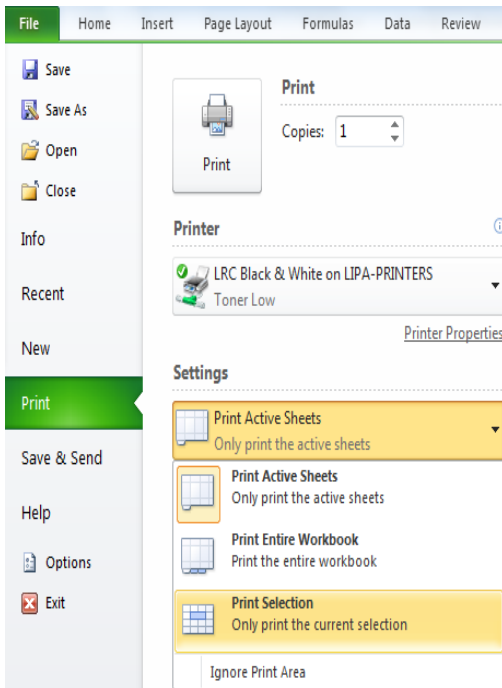
❖ **Page Layout and Printing**

To change the layout of the page from portrait to landscape, select the **Page Layout** tab and from the **Orientation** icon in the **Page Setup** group, make your selection.

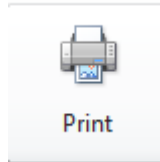


To print your spreadsheet **highlight** the area you wish to print. Go to the **File Tab** and select **print** and make your selection from the printer options.

To print just a section of your spreadsheet you must set the “**print area**” before printing otherwise it will print all of it. Highlight the area you want to print, from the



File tab select **Print** and under **Settings** select **Print Selection**, when ready click on the **Print** icon



Formulas and Functions

Excel will perform all the calculations for you, all you need to do is follow the procedure for setting formulas:

- ❖ All formulas must begin with an = sign, this tells Excel that a calculation is to take place;
- ❖ Formulas use cell references to calculate the value within the cells e.g. you tell Excel to multiply one cell with another and the total will appear in the cell you select. By using cell references rather than the actual values entered in the cell Excel can automatically update its calculations if the data is edited;
- ❖ To add, multiply, divide or subtract the following mathematical symbols or operators used in formulas are:

* for **multiply**

/ for **divide**

- for **subtract**

+ for **add**

Example - To multiply the values in 2 cells click on the cell where the total will be (C2) and type = (this will tell Excel that you want to create a formula within this cell). Click on the first cell to be used in the calculation, it's reference (A2) will now appear in the **total cell** then type * (for multiply), then click on the cell you wish to multiply it with. The formula will appear in the **total cell** and on the toolbar. Press **Enter/Return** to execute the multiplication.

| | A | B | C | D |
|---|----|----|--------|---|
| 1 | | | | |
| 2 | 32 | 16 | =A2*B2 | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

- ❖ To copy a formula from one cell to many others. Click on the total cell (where the formula has already been set up). Go to **Copy** on the **Clipboard** group on the **Home** tab. Move to the cell where you wish to copy it and **Paste**. Alternatively, you can simply replicate the formula across a row or down a column if required by dragging the **Fill Handle** at the bottom right hand corner of the total cell. Excel will automatically change the cell references for each row or column – this is known as **Relative Referencing**.

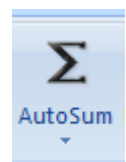
| | A | B | C | D |
|---|----|----|-----|---|
| 1 | | | | |
| 2 | 32 | 16 | 512 | |
| 3 | 34 | 7 | | |
| 4 | 25 | 12 | | |
| 5 | | | | |
| 6 | | | | |

- ❖ There may be a time when you do not want a cell reference to change when you are copying a formula. You then need to set the cell as an **Absolute Reference**, to do this \$ signs are placed before and after the column letter of the cell which is not to change.

Example – Here the enrolment fee in (B3) is added to the cost of each course (C6), when copying the formula we want B3 to stay the same in the formula so \$ signs are placed before and after the B

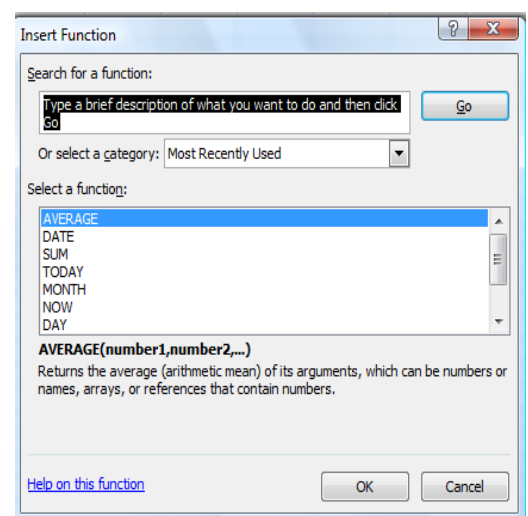
| | A | B | C |
|---|--|-------------|--------------|
| 1 | Short Summer Courses at LIPA 2006 | | |
| 2 | | | |
| 3 | Enrolment Fee | £25.50 | |
| 4 | | | |
| 5 | Courses | Fees | Total |
| 6 | Acting | £ 320.00 | =B6+\$B\$3 |
| 7 | Dance - Ballet | £ 125.00 | |
| 8 | Dance - Tap | £ 175.00 | |

- ❖ **Add Function** - If you are simply adding a row or column of numbers - go to the next empty cell down or across, and from the **Formulas** tab click on the **Autosum** icon. Excel automatically puts in the formula for you. Press **Enter/Return** to complete the calculation.



- ❖ **Average Function** – If you want to calculate the average of a row/column of numbers, go the next empty cell, from the **Formulas** tab select **Insert Function** and select **Average**. Again Excel will automatically put in the formula, press **Enter/Return** to complete the calculation.

- ❖ **Date Function** – In Excel, you can enter a function, which will give you the present date. From the **Formulas** tab select **Insert Function** and select **Date**. Enter the date in the format you want, this will give you the current date, and will automatically update every time you open the



spreadsheet. This can be used as part of a formula when calculating overdue payments etc.

- ❖ If you change the number in a cell Excel will automatically change the total.

Creating Graphs and Charts

You can easily create charts and graphs in Excel using the data in your spreadsheet.

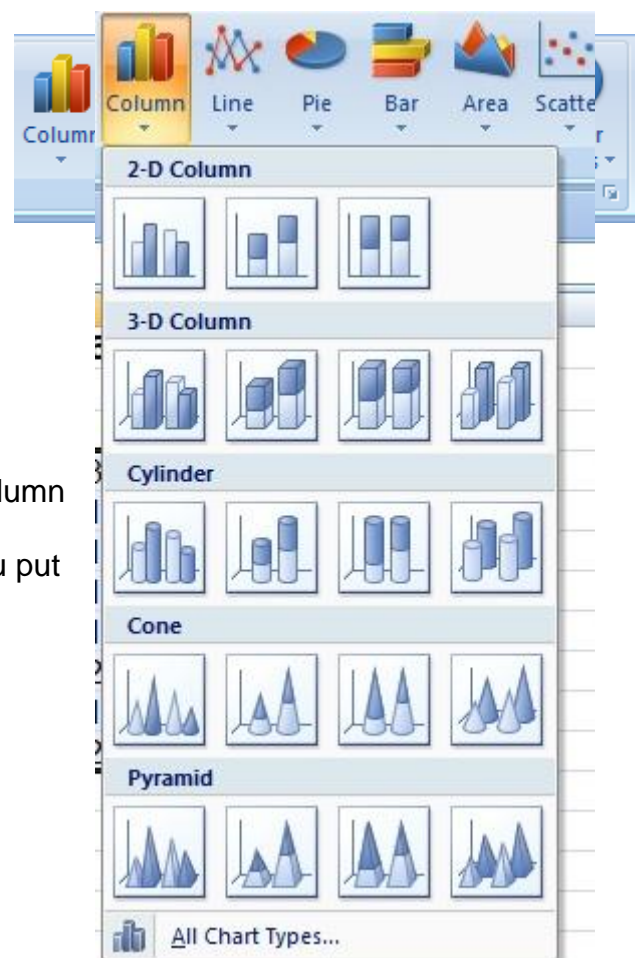
- ❖ Select the information you want to put into a chart. Here we will create a chart to show the number of students enrolled on the various courses. To do this:

| | A | B | C |
|----|--|-----------------|-------|
| 1 | Short Summer Courses at LIPA 2006 | | |
| 2 | | | |
| 3 | Courses | No. of Students | Fees |
| 4 | Acting | 30 | £ 320 |
| 5 | Dance - Ballet | 14 | £ 125 |
| 6 | Dance - Tap | 12 | £ 175 |
| 7 | Guitar | 17 | £ 225 |
| 8 | Improvisation | 16 | £ 210 |
| 9 | Musical Theatre | 22 | £ 250 |
| 10 | Singing | 18 | £ 150 |
| 11 | Stage Management | 24 | £ 380 |
| 12 | TOTAL | | |

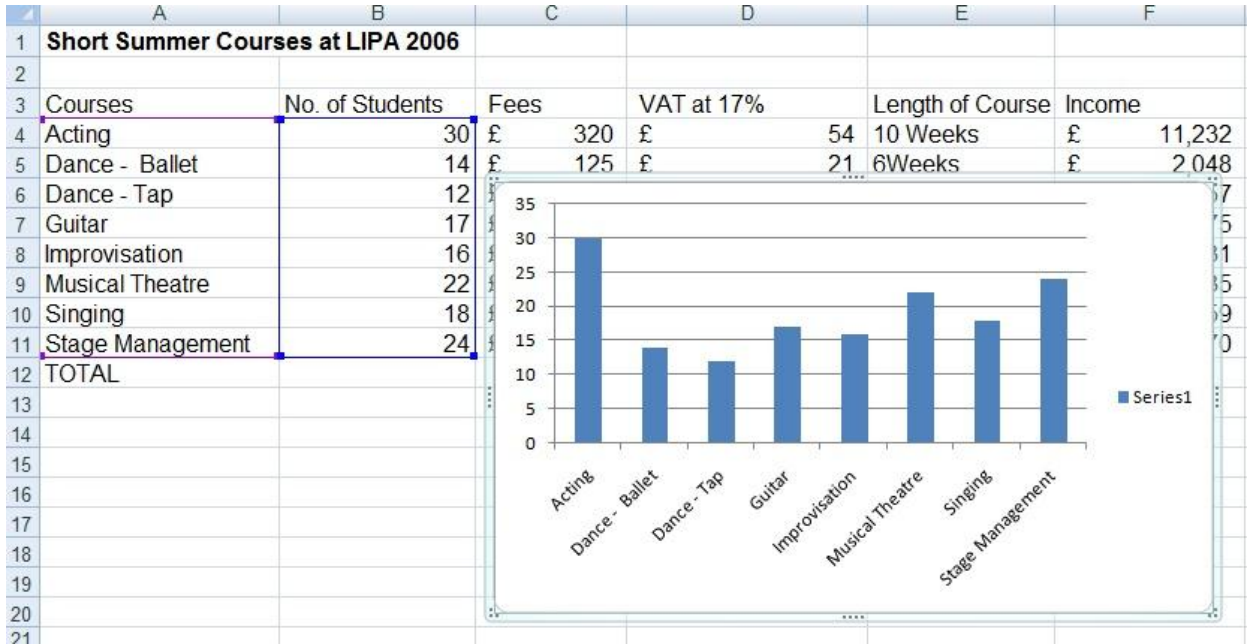
- ❖ Click and hold the mouse button and drag it across the area of the spreadsheet that holds the figures

- ❖ Click on the **Insert** tab, and in the **Charts** group, select the chart type you would like.

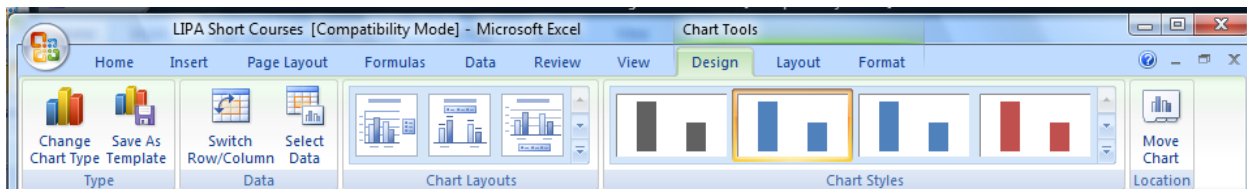
- ❖ To create a column chart, click on the column button and you will be given a number of column chart types to choose from. If you put your cursor over each type a screen tip displays the chart type name and gives information on when to use it.



- ❖ Once you have made your choice a chart will be inserted into your worksheet. Whichever chart you choose the formatting will be the same.

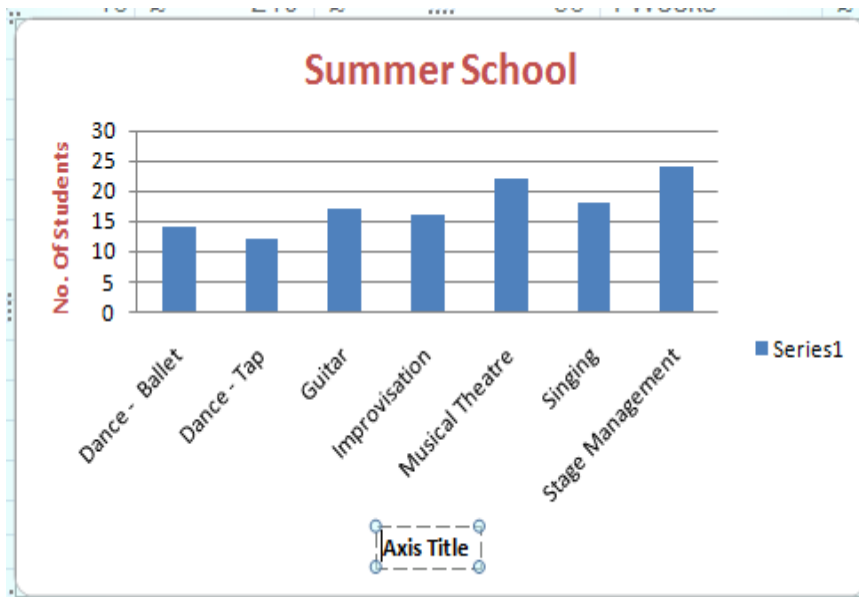


- ❖ After the chart is inserted in the worksheet the **Chart Tools** will appear on the top ribbon. There are three tabs **Design**, **Layout** and **Format**, and they contain all the commands you need to work with charts.



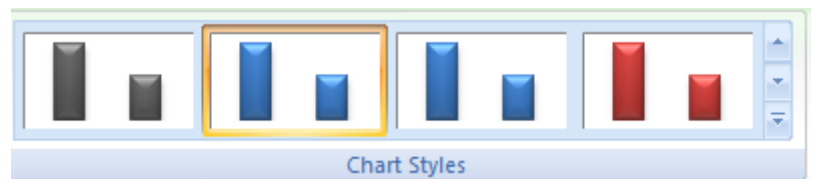
- ❖ To add a title to the chart and the chart axes, go to the **Chart Layouts** group on the **Design** tab, here there are a number of options on how the elements of the chart can be displayed, choose one which allows titles to be inserted.





- ❖ You can now type titles directly into the chart by clicking onto the title area. You can change the size, style and colour of the font from the **Font** tools on the **Home** tab

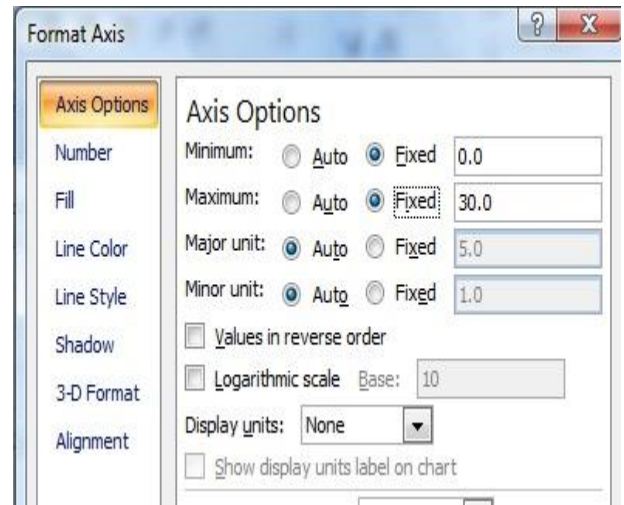
- ❖ To change the colour or style of the columns of the chart, make your choice from the **Chart Styles** group on the **Design** tab and the chart will update.



- ❖ To make the chart bigger or smaller, click anywhere on the chart to select it (i.e. until the pale blue border appears). Then stretch out the chart with the double-headed arrow in the areas where the black dots appear.
- ❖ To change the format of the chart, open the **Format** tab and from here you can change colour and thickness of borders, fill in background colour, apply WordArt styles etc.



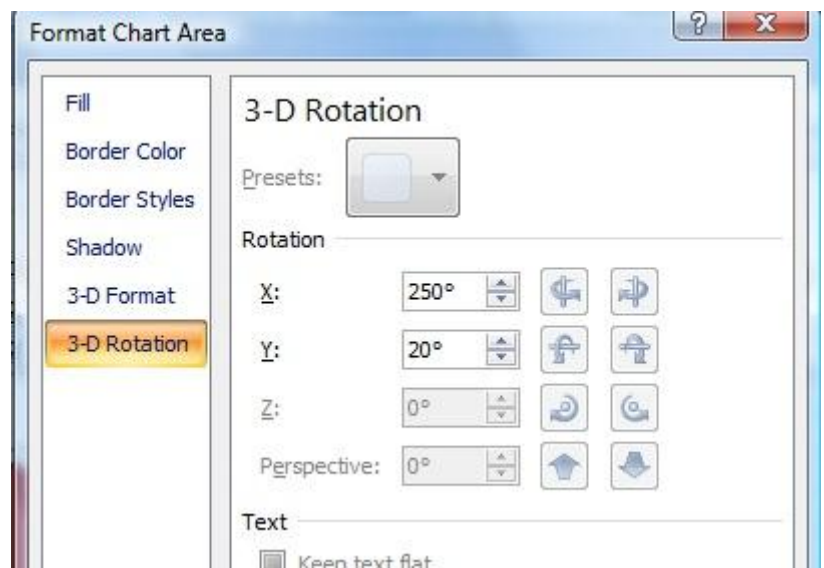
- ❖ To change the scale of the “y” or “value” axis, which is the vertical axis, right click on the axis line and from the menu select **Format Axis**, for the **Format Axis** dialogue box to open. From **Axis Options** click on the **Fixed** button to change the values in the relevant boxes.



- ❖ In the **Format Axis** Dialog box you can also change the colour and thickness of the line, and the format of the numbers by adding £ signs, percentages etc.

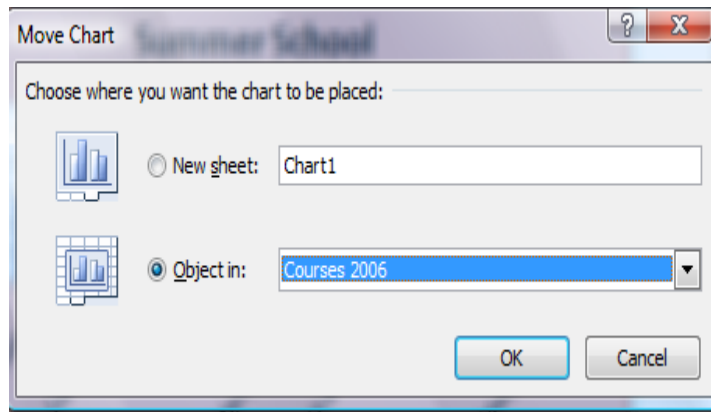
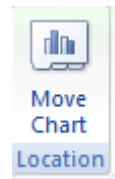
- ❖ To delete gridlines from the chart, right click on one of the lines and select **Delete** from the Menu.
- ❖ To delete the legend or data series on the chart, right click on the area and again select **Delete** from the menu. If your chart does not need a legend it is good practice to delete it.

- ❖ If you create a 3D chart you can rotate it to give different views. Right click in the chart area, select 3-D Rotation and from the dialogue box change the rotation of the x and y axis to give the desired effect.



Changing Chart Location

- ❖ If you want to move your chart to another location i.e. put it in a new sheet or place it as an object elsewhere in your spreadsheet. Open the **Design** tab and click on the **Move Chart** icon and make your choice.



- ❖ To Take Your Chart Into Word - In Excel, click on your chart to select it, from the **Clipboard** group on the **Home** tab click on the **Copy** button, open up word, put your cursor where you want to insert the chart and click on the **Paste** button.

