

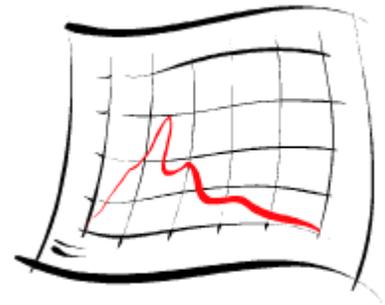


# Using Microsoft Excel

## Creating Charts

Once a table has set up, the information in the table can easily be turned in to one of several different chart types. These include:

- Column and bar graphs
- Line graphs
- Pie charts



Creating a chart in Excel involves following the steps below:

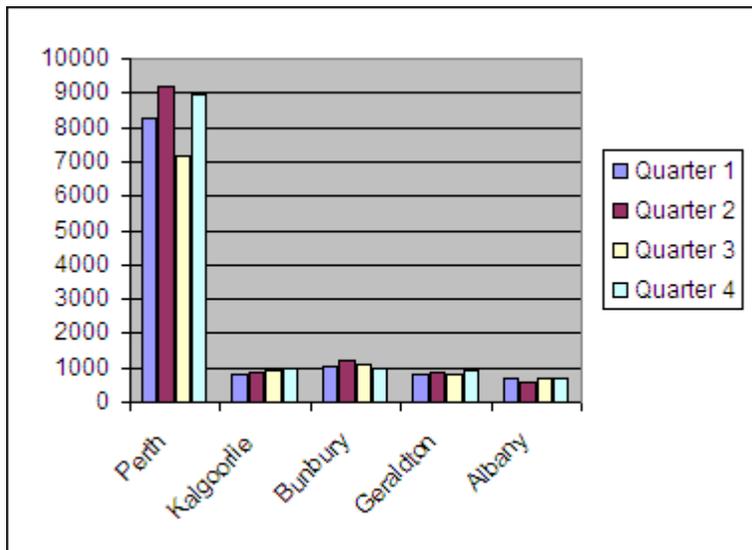
- 1) Select the data to be included in the chart.
- 2) The selection should include table headings. Excel can use headings as labels on the chart.
- 3) The selection generally should not include totals.
- 4) Begin the chart wizard which will prompt you for details about the chart.
- 5) Customise the completed chart.

The example below shows the kind of information that should be selected before creating a chart, along with a sample of the kind of chart that might be crated from the selected data.

Branch	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year Total
Perth	8274	9203	7182	8982	33641
Kalgoorlie	781	859	928	981	3549
Bunbury	1029	1203	1102	991	4325
Geraldton	819	849	817	928	3413
Albany	671	571	718	691	2651
<b>Total</b>	11574	12685	10747	12573	47579

Include in selection

Don't include in selection

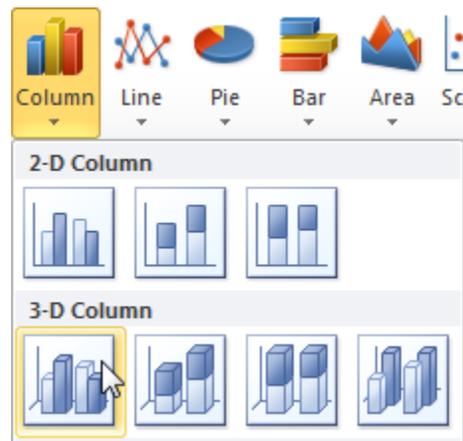


## Exercise 1. Creating a Column Graph

- 1) Open the *Grades* file that you have been working on previously. We will create a graph to show the results for the students each term.
- 2) Select the cells **A5:E14**. Note that this includes headings but no totals.
- 3) Select the **Insert** tab on the **Ribbon**.

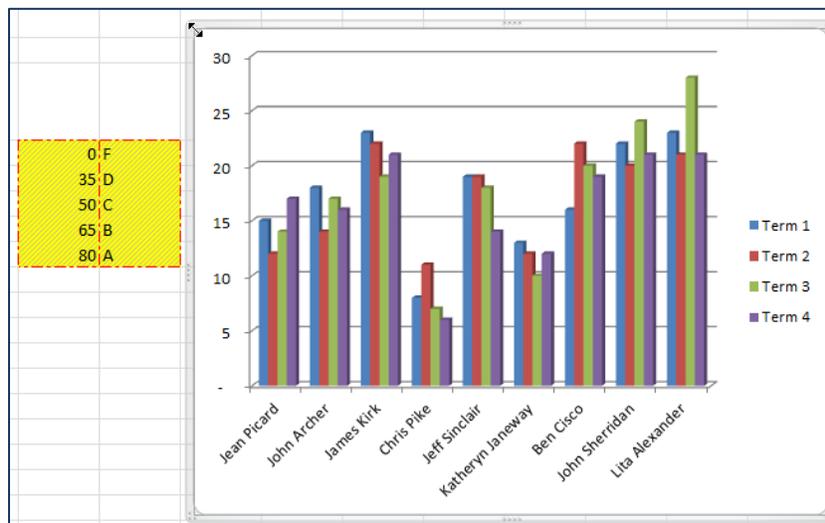


- 4) Click the **Column** Graph icon.
- 5) From the list of chart types choose the first **3-D Column** option.



A column chart will appear on your sheet. When you move your mouse over the chart, your mouse will change shape depending on what part of the chart it is over.

- 6) Move your mouse over the edge of the chart or a section of the chart where your mouse changes to the move shape. 
- 7) Drag your chart to the right of the cells in column **K** and **L**.
- 8) Move your mouse to the edge of the chart and drag to make it larger.



## Exercise 2. Changing Chart Data

1) Make sure the chart is selected.

Look at the table the chart information is taken from. You will notice blue borders around the cells the data is from and different coloured borders around the cells the chart labels are taken from (the table headings).

Student	Term 1	Term 2	Term 3	Term 4
Jean Picard	15	12	14	17
John Archer	18	14	17	16
James Kirk	23	22	19	21
Chris Pike	8	11	7	6
Jeff Sinclair	19	19	18	14
Katheryn Janeway	13	12	10	12
Ben Cisco	16	22	20	19
John Sherridan	22	20	24	21
Lita Alexander	23	21	28	21

2) Drag the bottom corner of the blue border upward so that Lita Alexander is no longer included in the selection. The chart will automatically update to remove that student.

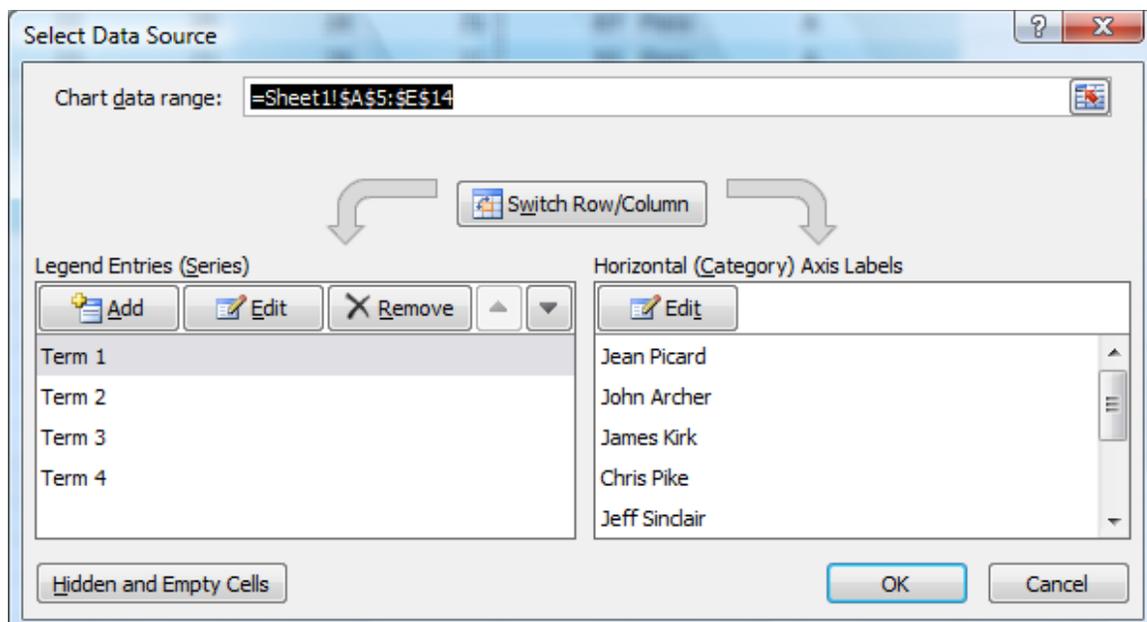
3) Drag the border corner back down again so that the student is included once again.

Some changes to chart data can't be made easily by shifting the coloured borders. If that is the case, then there are other ways of doing it.

4) From the **Chart Tools** select the **Design** tab.



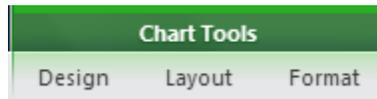
5) Click the **Select Data** icon.



6) Check the data in the dialog box and click **Cancel** to close.

### Exercise 3. Modifying a Chart's Format

When a chart has been created, you can customise almost anything about the way the chart looks. When a chart is selected, the Chart Tools tabs will appear on the ribbon.



These tabs contain icons that can be used to modify the chart in several ways. Most parts of a chart can be selected and formatted individually as well.

- 1) Select the **Layout** tab under **Chart Tools**.



- 2) Click the **Chart Title** icon.



- 3) From the list that appears select **Centered Overlay Title**. A title will appear on your chart.



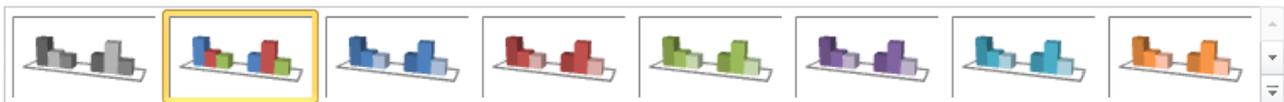
- 4) Edit the title text so it says *Advanced Spreadsheets Class*.
- 5) You can use the **Home** tab to format the font of the title in the normal ways (bold, font size etc). You can also use the **Format** tab under **Chart Tools** to format the whole title box with fancy borders, background fills and other formatting options. Experiment with the formatting options to format your title similar to the example below.



**Note** If you want to format all the text in a title, click the border of the box. That will mean you won't need to select the text itself.

Anything on your chart can be formatted if you select it first.

- 6) Click on the chart background and make sure the Design tab is still selected.
- 7) Try clicking on some of the chart colour schemes.



- 8) **Double-click** the chart background. The **Format Wall** options will appear.



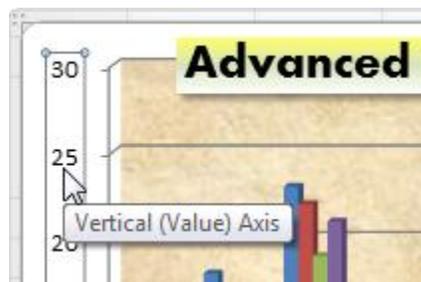
If you double-click on part of a chart, the Format dialog for that part of the chart will appear. This will contain many of the same formatting options found on the ribbon, but some people prefer finding the options when they are all grouped together like this.

9) From the **Fill** options choose **Picture or texture fill**. Texture options will appear below.

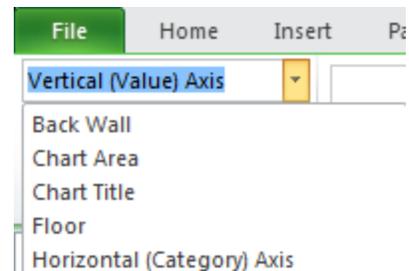
10) Click the **Texture:**  option and then choose a texture you think will suit your chart background.

11) Click **Close** when done.

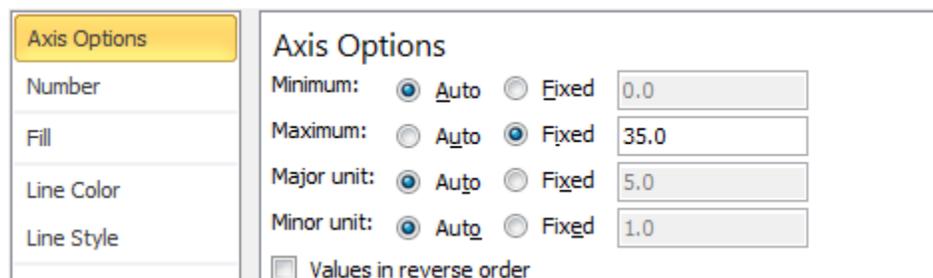
12) **Double click** the Vertical Axis as shown below.



**Tip** If you have difficulty selecting part of the chart using the mouse, you can select the **Format** tab from **Design Tools**, then select the part of the chart you want from the list at the beginning of the **Ribbon**.



13) When the **Format Axis** options appear, make sure the **Axis Options** category is selected on the left.

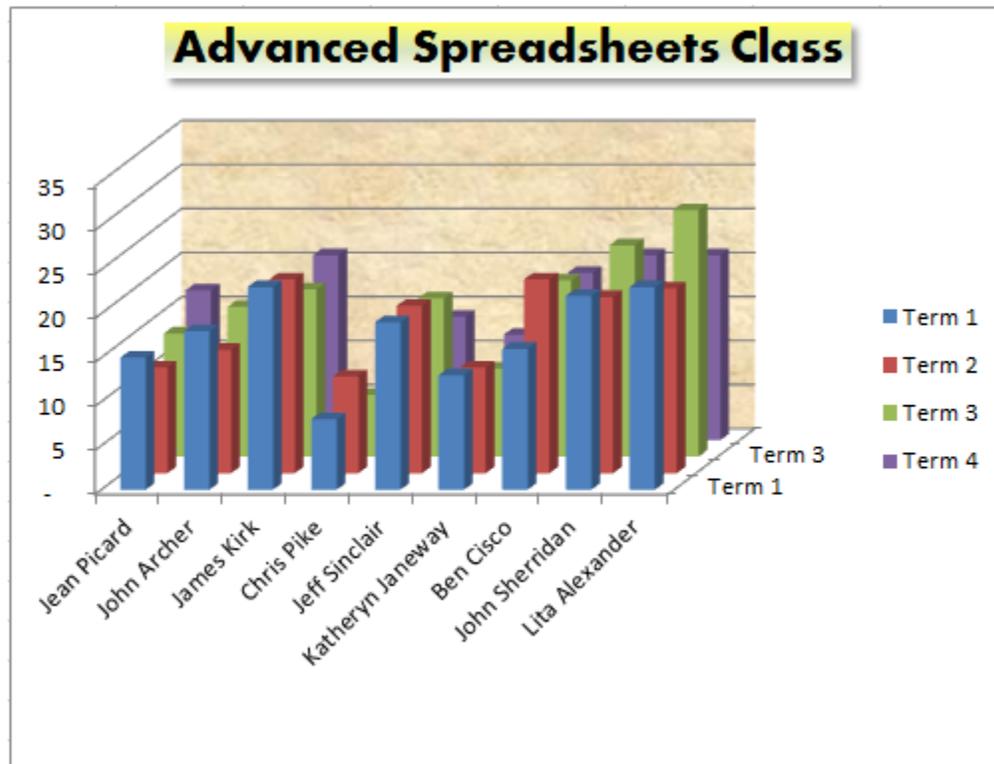
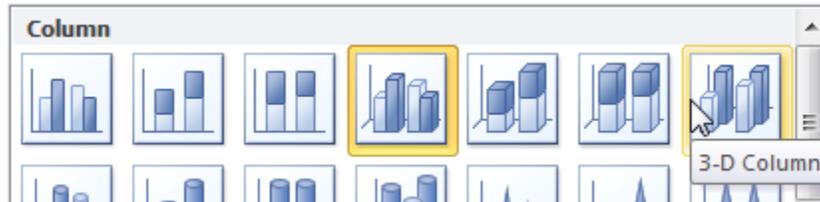


14) Under **Axis Options**, change the **Maximum** value to 35 as shown above and click **OK**.

15) Try changing some of the other axis values and see the result.

### Exercise 4. Changing Chart Type

- 1) Make sure the **Design** tab is selected under **Chart Tools**.
- 2) Click the **Change Chart Type** icon.
- 3) Select the last **3-D Column** type and then click **OK** to see how the chart will look with that layout.



- 4) Using the same option, try changing the chart to a **Line** chart layout.

## Exercise 5. Creating a Pie Chart

One of the differences between a pie chart and a normal chart is that a pie chart will only show data for one series at a time. In the following exercise, we'll create a pie chart from the year's data.

We need to begin by selecting the names of the students (to be used as labels) and the data itself.

1) Select the cells with the student names including the student heading (A5:A14). Since we need to select more than one group of cells we'll need to use the [Ctrl] key.

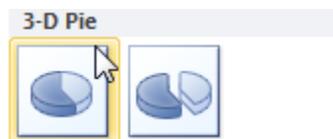
2) Hold down [Ctrl] and select the cells with the year data (F5:F14)

A5:A14 and F5:F14 should now be selected.

5) Click the **Insert** tab on the ribbon.

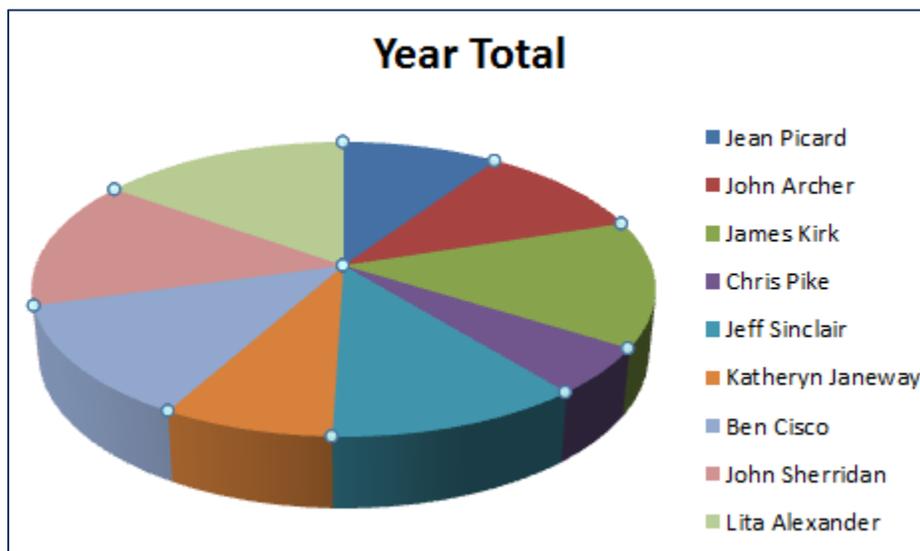
6) Click the **Pie** chart icon.

7) Choose the **Pie in 3-D** option.



8) Move the pie chart so that it is below your table.

9) Click on a pie piece. All the pieces will be selected.

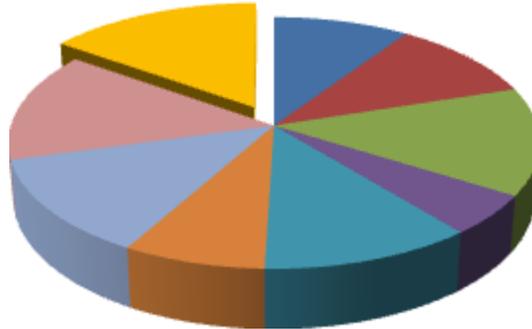


10) Click a second time on one of the pieces. That piece alone will now be selected.



11) Use the format options to change the fill colour for that selected piece. The legend next to the chart will update to reflect the change in colour.

- 12) Drag the selected piece away from the centre of the chart. This allows you to emphasise a certain slice of the chart.



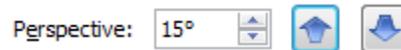
**Tip** Before creating a pie chart, it can be useful to sort the data first which we will cover later. For instance we could have it sorted from highest mark to lowest mark which would result in the pie chart having largest slice moving through to smallest slice. Remember that if you change the data a chart is based on, such as sorting the table, the chart itself will update also.

- 13) Select the **Layout** tab from **Chart Tools**.

- 14) Click the **3-D Rotation** icon.



- 15) Click the arrows next to the **Perspective** option to change the angle the chart is viewed from. This option is available for any 3-D chart including the one you created earlier (though it might no longer be 3-D depending on what sort of chart layout you have most recently selected).



- 16) Try changing the **X:** and **Y:** rotation options to rotate the chart.

- 17) Click **OK** when you have got the angle you think looks the best for your chart.

**Tip** Instead of creating a chart that is on the same sheet as your table, you can create a chart that is on a sheet on its own. To do this, select the cells that you want your chart to be based on as shown before and then press **F11**. This will create a new sheet filled with a chart which you can then customise in the ways shown above.

