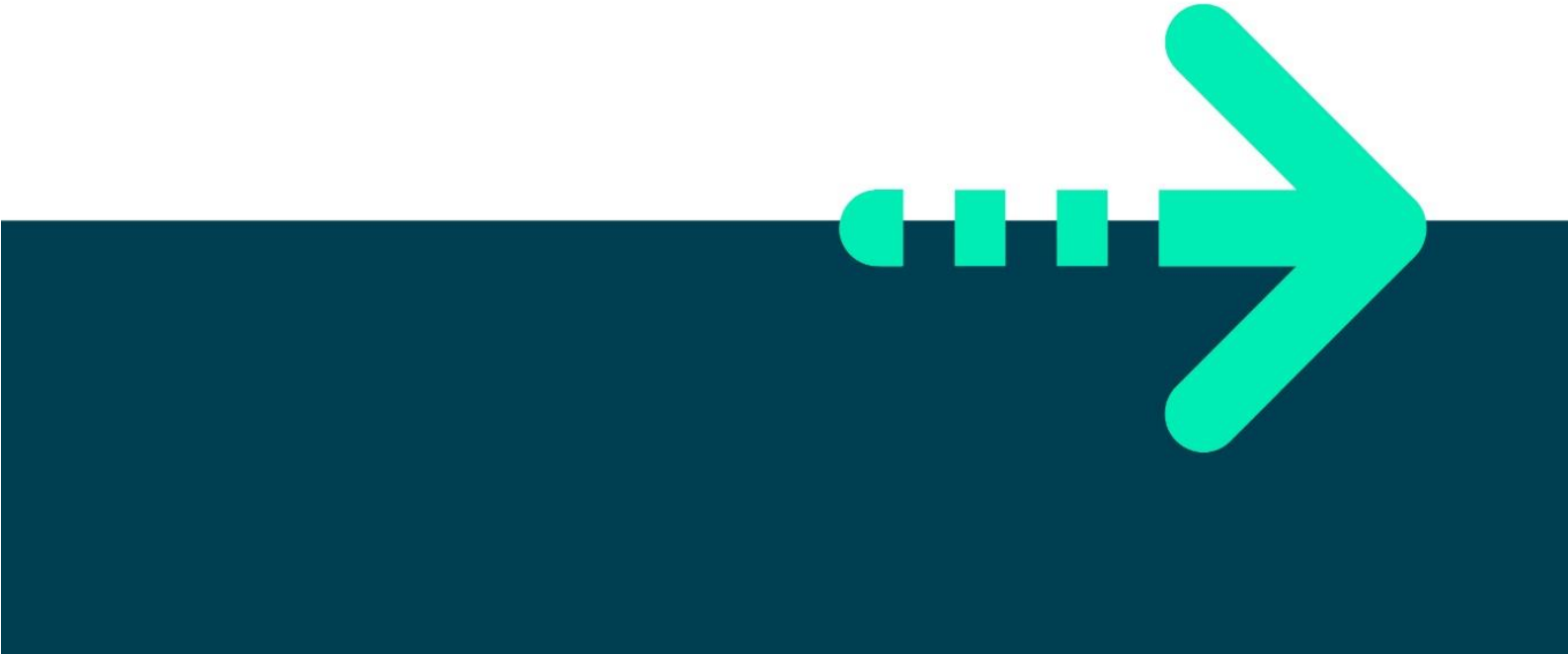
Excel Fundamentals

Learner Guide



CONTENTS

How to use this workbook

Activity

Alongside this icon you'll find details of the group/individual activity or a point for everyone to discuss.

Useful tool

This icon indicates a technique that will help you put what you learn into practice.

Important idea or concept

Generally, this icon is used to draw your attention to ideas that you need to understand by this point in the course. Let your trainer know if you do not understand or see the relevance of this idea or concept.

Helpful hint

This icon guides you to tips or hints that will help you avoid the standard pitfalls that await the unwary practitioner, or to show you how you might increase your effectiveness or efficiency in practising what you have learnt.

Key point

This icon is used to indicate something that practitioners in this field should know. It's likely to be one of the major things to remember from the course, so check you do understand these key points.

Reference material

When we have only touched briefly on a topic, this icon highlights where to look for additional information on the subject. It may also be used to draw your attention to International or National Standards or Web addresses that have interesting collections of information.

Definition

Where a word with a very specific definition (or one that could be described as jargon) is introduced, this will highlight that a definition is provided (These words will also be found in the glossary at the back of the workbook).

Warning

This icon is used to point out important information that may affect you and your use of the product or service in question.

Introduction

Welcome to Excel Fundamentals. This guide will take you through instructions on the following 10 key topics in Excel, including Excel functions, formulas, shortcuts, and creating tables and charts. You will be up and running with Excel in no time.

1. Sum
2. Fill
3. Split
4. Transpose
5. Sort and Filter
6. Tables
7. Drops-downs
8. Analyse
9. Charts
10. Pivot tables

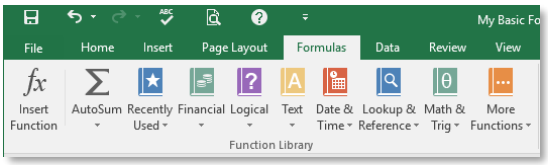
SUM and SUMIF

Add numbers like a champ

Guided activity:

Adding up numbers in Excel

1. Open the Excel file titled: **Excel Fundamentals Data.xlsx** and navigate to the **SUM AND SUMIF** workbook.
2. Select the yellow cell under the amounts for fruit.
3. Type **=SUM(B2:B5)** and then press enter. When you're done, you'll see the result of 170.
4. Here's another way to add, using a shortcut key. Select the yellow cell under the amounts for meat.
5. Press “Alt =” simultaneously on your keyboard. Then, press **Enter**.
6. Another way to add is to use **AutoSum**, this can be found on the **Formulas** ribbon, as shown below.



7. Select cell H6, click the arrow below AutoSum and select Sum. The drop-down arrow also shows, average, count, min, max, and an option for More Functions. This will sum up the meat amounts in cells H2:H5.
8. Now add only the numbers over 50 using a SUMIF function. Select the yellow cell in B14. Type **=SUMIF(B9:B13,">50")** and then press **Enter**. The result is 100.
9. The SUMIF function sums up totals based on a criterion. The formula is explained below:

Sum up some values based on this criterion:	**Look through these cells...**	**...and if the value is greater than 50, sum it up**
= SUMIF	(B9:B13,	“>50”)

10. Add another SUMIF formula in cell E14 but add amounts that are **less than 100**. The result should be 160.
11. Try adding another SUMIF formula in cell H14 but add amounts that are greater than or equal to 50. The result should be 200.

Key point
There are other operators you can use like '<=50' which is **less than or equal to 50**. And there's '<>50' which is **not equals 50**.

Helpful hint
In some of the above instructions, you've learnt how to use the SUM function. Here are more details about it.

12. Double-click the yellow cell B21, and then read along with the text below:

Sum up the following:	**...the values in cells B17, B18, B19 and B20.**
= SUM	(B17:B20)

13. Select these cells B17, B18, B19 and B20. Then in the lower-right corner of the Excel window, look for this: 

. That's just another way to quickly find a total.
14. Here's another way it can be used:

Sum up the following:	**...the value in cell B24**	**...the values in cells E24, E25, E26, E27...**	**... and 100.**
= SUM	(B24,	E24:E27,	100)

Key point
Double-click cell C30. You'll notice the **100** toward the end. Although it's possible to put numbers in a formula like this, it is not recommended unless it's absolutely necessary. This is known as a **constant**, and it's easy to forget that it's there. We recommend referring to another cell instead, like cell B14. That way it's easily seen and not hidden inside a formula.

15. This =SUM(B24,E24:E27,100) formula uses the following:

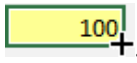
- A single **cell reference**, which is the 'address' or 'name' of a cell. B24 is the single cell reference in the formula above.
- A **range of cells**, which is a series of cells starting at one cell and ending at another. E24:E27 is the range of cells in the formula.
- A **constant**. The constant in this formula is the number 100.

Fill

Save time by filling cells automatically

Guided activity:

Here's how to use the fill handle in Excel:

1. Ensure you are still in the **Excel Fundamentals .xlsx** file and navigate to the **Fill** workbook.
2. Click the cell with the number **100**.
3. Rest your cursor on the lower-right corner of the cell until it becomes a cross: 

. This is known as the **Fill Handle**.
4. Click the cross and drag down three cells. Excel will automatically fill the cells with the totals: **110**, **120**, and **130**. This is known as 'filling down.'

Helpful hint

Another way to complete step 4: Select cells C2, C3, C4, and C5 by holding the SHIFT key while pressing the ARROW DOWN key, then press CTRL+D. Excel will automatically fill the cells with the totals: 110, 120, and 130.

5. Click cell E2 and drag to select the four cells, and then press CTRL+D. That's the shortcut key for filling down. Can you guess what the shortcut for filling right is?
6. Click the yellow cell with **200** and fill again but this time drag the fill handle to the **right** to fill the cells, or you can use the shortcut answered in step 5. This is known as 'filling right.'

Use the fill handle to copy cells

Guided activity:

Copy values to other adjacent cells

1. Click the cell with the word **Produce** in cell A9. Rest your cursor on the lower-right corner of the cell until it becomes a cross, then drag down three cells.
2. Now select the cell with the word **Fruit** in cell B9. Rest your cursor on the lower-right corner again, and when you get the cross, double-click. That's another way to fill down in case you ever need to fill a long column.

Fill a series

Guided activity:

Fill cells based on a series

Excel can automatically fill some cells based on a series. For example, you can type Jan in one cell, and then fill the other cells with Feb, Mar, etc.

1. Click the cell with the word **Jan**.
2. Rest your cursor on the lower-right corner of the cell until it becomes a cross, then drag the right two cells. Excel detects a series and fills in **Feb** and **Mar** for you.
3. Now select the cell with **Week 1**.
4. Rest your cursor on the lower-right corner again, and when you get the cross, **double-click** it.
5. Select cell A20, and then drag the fill handle down 3 cells. After that, click this button:  . This is the **AutoFill Options** button, and it lets you change the fill immediately after. Choose another option like Copy Cells, Fill Formatting Only, or Fill Without Formatting. What are your findings for each?
6. Select cells A26 and B26, and then drag the fill handle to the right, up to cell F26. Excel fills the series in increments of 0.8. Try changing 1 and 1.8 to other values, like 15 and 30 (Excel fills the series in increments of 15), or Mon and Wed, or January and March. Then fill to the right again... see what happens!

Split

Navigate to the **Split** workbook.

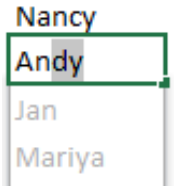
Data in one column

Guided activity:

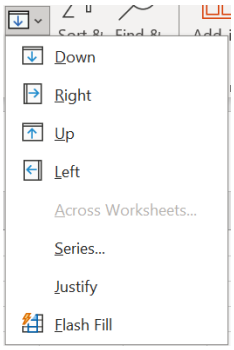
Split data stuffed in one column using Flash Fill

1. In the cells under **First name**, type the first two names that are in the Email column: *Nancy*, *Andy*.
2. When you see the faded list of suggestions, press **Enter** right away.
3. This list of suggestions is called **Flash Fill**. Flash Fill detects when you type a consistent pattern and provides suggestions to fill the cells

with. When you see the faded list, that's your cue to press Enter.



4. Try another way to Flash Fill: Click the cell with Smith.
5. Click **Home** > **Fill** > **Flash Fill**. Now the last names are in their own column. CTRL+E is the shortcut for Flash Fill.



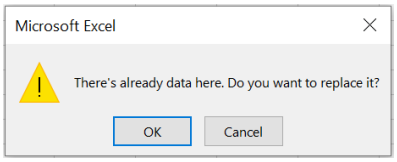
Split a column based on delimiters.

Guided activity:

Split a column using Text to Columns

Flash Fill is handy, but if you want to split data into more than one column all at once, then it's not the best tool for the job. Try Text to Columns in this situation.

1. Click and drag to select the cells from **Nancy** all the way down to **Nina**, in **A13:A24.**
2. On the **Data** tab, click **Text to Columns**. Make sure that **Delimited** is selected, and then click **Next**.
3. Under **Delimiters**, make sure that **Comma** is the only checkbox selected, and then click **Next**.
4. Click the **General** option.
5. Finally, click inside the **Destination** box and type **$B$13**. Then click **Finish**. The below prompt may appear, click OK and you should have First name, Last name, and Company name split into their respective columns.



Split a column with formulas

Guided activity:

LEFT, RIGHT, FIND, and LEN functions.

These four functions are used to split long text entries into separate shorter entries, or to extract characters from within a text string.

- =LEFT(text, [num chars])
- =RIGHT(text, [num chars])
- =LEN(text)
- =FIND(find text, within text, [start num])

The LEFT and RIGHT functions have two arguments:

- **Text:** the text string to search
- **Num chars:** optional; the number of characters to be extracted (if not specified, the function will return the first character)

The below example gives a simple and brief example of LEFT and RIGHT functions.

	A	B	C
1	**Text**	**Result**	**Function**
2	jo.bloggs@qa.com	jo	=LEFT(A2,2)
3		qa.com	=RIGHT(A2,6)

The formula =LEFT(A2,2) returns two characters on the left of the text in cell A2, which is **jo**.

The formula =RIGHT(A2,6) returns six characters on the right of the text in cell A2, which is **qa.com**.

The LEN function returns the number of characters in a cell. This is particularly useful when using find and performing string extraction. It is rarely used by itself, commonly being used with the FIND function.

The FIND function returns the position of a character, or number of characters within a cell.

- =LEN(text)
- =FIND(find text, within text, [start num])

The below example gives an example of both LEN and FIND functions including how both is used within the LEFT and RIGHT functions.

	A	B	C
1	**Text**	**Result**	**Function**
2	jo.bloggs@qa.com	16	=LEN(A2)
3		10	=FIND("@",A2)
4		jo.bloggs	=LEFT(A2,FIND("@",A2)-1)
5		qa.com	=RIGHT(A2,LEN(A2)-FIND("@",A2))

The first two functions return the length of the text string (16 characters) and the position of the @ sign, respectively. The last two return all the characters to the left of the symbol, and to the right.

Guided activity:

Split text data using LEFT, RIGHT, FIND, and LEN functions.

Let's explore how the LEFT, RIGHT, FIND, and LEN functions can be used to split text data. This is particularly useful when the original data gets updated, then the split data will get updated as well. This activity is more advanced, but it is possible when using a handful of functions: such as, LEFT, RIGHT, FIND, and LEN. Here's how we split the text data in cell A27.

1. Double-click the yellow cell with **Yvonne** and study the formula. Any idea on what the formula means?

Key point

The LEFT function is used to extract characters from the left side of cell A27 and to specify the number of characters to extract, we used the FIND function.

2. The **Helper column** has been created to 'help' extract the other text (middle and last name) in the cell. It's meant to be temporary and something you could always hide later.
3. Double-click **Francis McKay** in the [Helper column]. You'll see that we used the RIGHT, LEN, and FIND functions to extract characters from the first space, up until the end of the cell.
4. Double-click **Francis**. Here we used almost the same formula as in step 1, but instead of extracting characters from A27, it extracts them from D27 **Helper column**.
5. Double-click **McKay**. This is the same formula as in step 3, but it extracts characters from D27 instead of cell A27.
6. Let's take a further look at understanding the below formulas:

=LEFT(A27,FIND(" ",A27)-1)

=RIGHT(A27,LEN(A27)-FIND(" ",A27))

How this formula works: “=LEFT(A27,FIND(" ",A27)-1)”

=LEFT	Extract characters from the left side of...
(A27,	...this cell...
FIND(" ",A27)	...and extract this many characters. To specify the number of characters, use the FIND function. This finds the character position number of the first space in cell A27
-1)	...then subtracts 1 to exclude the space itself.

How this formula works: “=RIGHT(A27,LEN(A27)-FIND(" ",A27))”

=RIGHT	Extract characters from the right side of...
(A27,	...this cell...
LEN(A27)-FIND(" ",A27))	...and extract this many characters. To specify the number of characters, use the LEN function... LEN returns the count of characters (character length) of cell A27, including the white spaces and subtracts this number: Find the character position number of the first space in cell A27.

Transpose

Switch data around

Guided activity:

Copy and paste

When you need to switch data around, for example to rotate columns and rows, you **transpose** them in Excel.

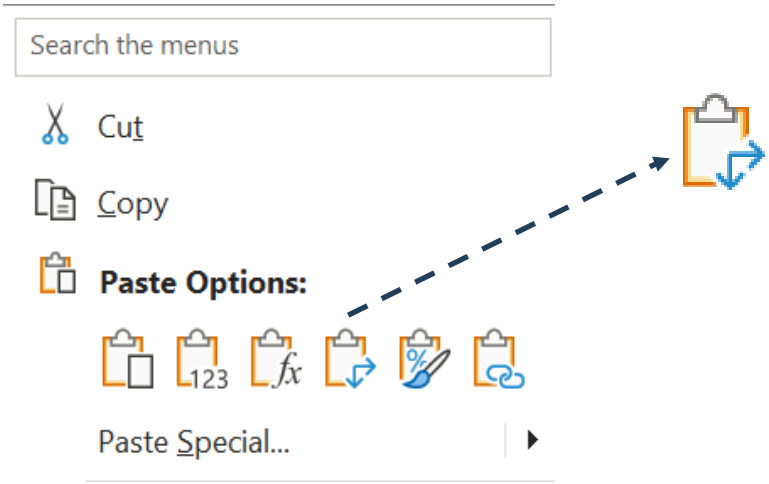
1. Navigate to the **Transpose** workbook.
2. Click and drag to select the two rows of cells from **Item**, to **20**.
3. Copy the cells. Press Ctrl C on your keyboard.
4. Click the yellow cell in H1, this is where you want to paste the transposed table.

5. On the **Home** tab, click the arrow under the **Paste** button. 

6. Click **Paste Special**, and then at the bottom click the checkbox for **Transpose**. Click **OK**.

Helpful hint
The shortcut key for Paste Special is CTRL+ALT+V.

7. Another way to paste your data is to apply steps 2 to 4 above, right click on cell H1, and then choose **Transpose** as shown below.



Transpose with a formula

Sometimes you don't want to copy and paste to transpose. In this case, you can use a formula to transpose rows and columns. Here's how to do that:

1. Continue on the **Transpose** worksheet.
2. To transpose the data in cell A7:F8, you need to select some blank cells first. The data has 6 columns and 2 rows, you need to select the opposite: 2 columns and 6 rows. Do this by selecting the yellow cells in H7:I12.
3. This is kind of tricky, so pay close attention. With those cells **still selected**, type the following: **=TRANSPOSE(A7:F8)** ...but **don't press Enter**.
4. Press Ctrl Shift Enter

   If you get #VALUE! as a result, try again starting at step 2.
5. Click any of the yellow cells to select just one. Look at the formula at the top of Excel. You'll see that the formula looks like this: **{=TRANSPOSE(A7:F8)}**

6. Click another yellow cell. Look at the formula bar again. The formula is the same. Why? Because this is an **array formula**.

What's an array formula?

An array formula can perform calculations on more than one cell in an array. In the example above, the array is the original data set in cells A5:F6. The TRANSPOSE function then switches the horizontal orientation of the cells to a vertical orientation.

You always finish an array formula with CTRL+SHIFT+ENTER, not just ENTER. Pressing CTRL+SHIFT+ENTER calculates the function against the array. When you're done, Excel puts special brackets { } around the formula. These brackets are a visual clue that the selected cell is part of an array formula. You can't type these brackets yourself. Excel puts them in when you press CTRL+SHIFT+ENTER.

Key point

There are three things to keep in mind when using an array formula:

1. Always select multiple cells first, and then with those cells selected, start typing the array formula. That's the key: Select multiple cells first, then start typing.
2. When you're done typing an array formula, press CTRL+SHIFT +ENTER.
3. Once you enter an array formula, you cannot interrupt that new array. For example, you cannot type over or delete just one of the cells. You also cannot insert a new row or column within that array. If you need to any of that, select all the cells that have the array formula, press Delete, and then make your changes and recreate the formula.

Reference material

Refer to **Guide to Microsoft Excel.pdf** for further Excel activities on Transpose on page 34.

Sort and filter

Sort and filter with ease

Guided activity:

Sort and filter

1. Navigate to the **Sort & Filter** workbook.
2. Let's say you want the departments in alphabetical order. Click in the Department column, and then click **Home** > **Sort & Filter** > **Sort A to Z**.
3. Sort December's amounts from largest to smallest. Click any cell in the Dec column, and then click **Home** > **Sort & Filter** > **Sort Largest to Smallest**.
4. Now you'll filter the data so that only the Bakery rows appear. Press CTRL+A to select all the cells, and then click **Home** > **Sort & Filter** > **Filter**.
5. Filter buttons appear on the top row. On the **Department** cell, click the filter button and then click to clear the **Select All** checkbox. Then, click to select **Bakery**.
6. Click **OK** and only the Bakery rows appear. Now clear the filter by clicking the filter button for Department and then click **Clear filter from Department**.
7. Let's try sorting alphabetically by two columns. First sort **Department** alphabetically (that's step 1 on the left). Then click **Home** > **Sort & Filter** > **Custom Sort**. Add a second level for **Category**. After you click OK, **Department** will be sorted, and within each department, **Category** rows will be sorted in alphabetical order as well.

Sort by date and colour

1. In cell A12, let's put the expense dates in order. Begin by right clicking a date and then click **Sort** > **Sort Oldest to Newest**. The rows get sorted in ascending date order by the Expense date.
2. Three cells are highlighted in yellow. You can sort the rows by that color. Right-click a yellow cell, and then click **Sort** > **Put Selected Cell Color on Top**.
3. You can't clear a sort order like you can a filter. So, if you don't want your sort to stick, undo it by pressing CTRL+Z.

More ways to filter data

1. On the **Hotel** column in cell in D20, click the filter button and then click **Number Filters** > **Above Average**. Excel calculates the average amount of the Hotel column, and then shows only rows with amounts greater than that average.
2. Now add a second filter. On the **Food** cell, click the filter button and then click **Number Filters** > **Greater than...** and then type **25**. Click **OK**. Of the three rows that were filtered for above average, Excel shows two rows with Food amounts greater than 25.

Tables

Inserting a table

Guided activity:

Table insert, format, calculated columns, and total rows.

A table gives you special features and convenience. Here's how to create a table.

1. Click inside the data in cell A1:E9 and then click **Insert** > **Table** > **OK**.
2. Now you have a table, which is a collection of cells that has special features. For starters: A table gives you banded rows for easier reading.
3. You can also create new rows easily. In the empty cell under **Meat**, type some text e.g., 'Drink', and then press Enter. A new row for the table appears.
4. You can also easily create columns: In the lower-right corner of the table, click the resize handle and drag it to the right 2 columns.
5. Notice how the two columns are created, formatted, and the text Jan and Feb are filled for you.

Calculated columns and total rows in tables

One example of a convenience that tables give: **calculated columns.** You type a formula once, and it gets automatically filled down for you. Here's how it works:

1. Select cell F12, press Alt = and press Enter.
2. The sum formula gets filled.
3. After putting in the calculated column, try typing over one of the cells in the column. What happens? If you see a green triangle, click it and then click the exclamation mark. You'll see that Excel's watching out for you.

Another convenience in tables are **total rows**. Instead of typing a SUM formula, Excel can make that total for you with a flip of a switch. And the same goes for the AVERAGE formula, and many others. Here's how it works:

1. Select any cell within the table in cell A21:C29
2. At the top of the Excel window, the **Table Design** tab will appear.

3. On that tab, click **Total Row**.
4. The total of **£24,000** is added to the bottom of the table.
5. But what if you wanted to know the average? Click the cell with **£24,000**.
6. Click the down arrow  and then click **Average**. The average amount of **£3,000** appears.
7. There's a shortcut for showing and hiding the total row. Click inside the table, and then press CTRL+SHIFT+T.

Drop-downs

Insert a drop-down list

Drop-down lists help ensure people enter valid data. So, it makes sense that drop-downs are a part of a larger group of features known as **data validation**.

Guided activity:

Drop-down list

1. Navigate to the **Drop-downs** workbook.
2. We want only three department names to be valid entries for each of the foods. Those departments are Produce, Meat, and Bakery.
3. Click and drag to select the yellow cells under **Department**.
4. On the **Data** tab, click on the **Data Validation** icon  . Under **Allow**, click **List**.
5. In the **Source** box, type **Produce, Meat, Bakery**. Make sure to put commas in between them. Click **OK** when you're done.
6. Now click the yellow cell next to **Apples** and you'll see a drop-down menu.
7. There are other data validation methods. For example, you can restrict entry to whole numbers, dates, times, or even minimum and maximum amounts.

Drop-downs best practice

We just covered how to insert a drop-down menu for the list of departments. But what if that list changes? For example, what if there is a new department called Dairy? You'd have to update the data validation dialog box. But there's a more efficient way by creating a table first:

1. In column D, click a cell with a department. For example, click **Meat**.
2. Create a table by pressing Ctrl T and then **OK**.
3. Now you'll set up the data validation again. In column B, select all the blank cells under **Department**.
4. On the **Data** tab, click **Data Validation**. Under **Allow**, click **List**.
5. Click inside the **Source** box, then click the up arrow button 

6. Click and drag to select just the **Produce**, **Meat**, and **Bakery** cells in column D. Then click the down arrow button.
7. You should see this in the **Source** box: **=$D$16:$D$18**. (If you don't see that you can type it in.) Click **OK**.
8. Now click the drop-down arrow. There are only three departments: Produce, Meat, and Bakery. But if you add a new department in column B under Bakery, for example Dairy, it will get updated with the new department.

Helpful hint

Often people put their validation lists like this out of the way on another sheet. That way others won't be tempted to change the list.

Analyse

Analyse data quickly

Guided activity:

Quick analysis

Here's how to analyse data so that you can spot patterns and trends quickly:

1. Navigate to the **Analyse** workbook**.**
2. Click and drag to select all cells in A1:E9, and then click this button in the lower-right corner:  This is called the **Quick Analysis** button.
3. On the panel that appears, click **Data Bars**. The cells under Oct, Nov, and Dec columns get special data bars that visualize their amounts.
4. Now let's say you want to get rid of the bars. Click this button again: 
5. On the panel that appears, click the **Clear Format** button on the right.

Create a chart

You can always use the **Insert** tab and create a chart. But here is another way to make a chart using the Quick Analysis button. This time though, we'll use the keyboard shortcut:

1. Click and drag to select all cells in A1:E9, and then press Ctrl Q
2. On the panel that appears, click **Charts**.
3. Click the **Clustered Column** button.
4. A new clustered column chart appears. Move it anywhere you'd like. Notice that each category has three columns, one for each month of sales.

Add sparklines

Let's say you want little trend lines to this data to show how the amounts go up or down during the three months. You don't have to make 8 little line charts. You can make sparklines instead.

1. Click a cell inside the data and then press Ctrl Q
2. On the panel that appears, click **Sparklines**, and then click the **Line** button.

3. Sparklines appear to the right of the **Dec** column. Each line represents the data for that row and shows whether the amounts go up or down.
4. You can edit the sparklines individually or as a group by clicking on the first sparkline in cell F2. The **Sparkline** tab will appear at the top of the window. Go to that tab then **Edit Data** on the left of the **Sparkline** ribbon, then **Edit Group Location & Data, (Edit single Sparkline's Data** allows you to edit each sparkline individually) change B2:E9 to C2:E9 on the **Data Range.** This focuses on the numeric data in columns C:E.
5. To clear the sparklines, click and drag to select them. Select the **Sparkline** tab at the top of the window and then click the **Clear** button on the right.

Reference material
Refer to **Guide to Microsoft Excel.pdf** for further Excel activity on Quick Analysis on pages 92 - 93.

Charts

Chart Design

Guided activity:

Creating and designing a chart

1. Navigate to the **Charts** workbook**.**
2. Click anywhere in the data in cells A1:B7, and then click **Insert** > **Recommended Charts**.
3. You'll see several recommendations. Click the second one on the left called Clustered Columns. Then click **OK**.
4. A column chart appears showing the total number of conference attendees per year. Feel free to move it anywhere you'd like.
5. Now you'll add a trendline. Select the chart, and the **Chart Design** tab will appear at the top of the Excel window.
6. On the **Chart Design** tab, click **Add Chart Element** on the left of the ribbon > **Trendline** > **Linear**. Now you have a trendline that shows the general direction of the units sold over time.
7. To remove the trendline, click **Add Chart Element** > **Trendline** > **None**.
8. To add a data table directly under the chart. Click the chart. On the **Chart Design** ribbon. Then click **Add Chart Element** on the far left > **Data Table** > **With Legend Keys**.
9. To remove the **legend keys,** click **Add Chart Element** > **Data Table** > **None**.

Horizontal and vertical axes

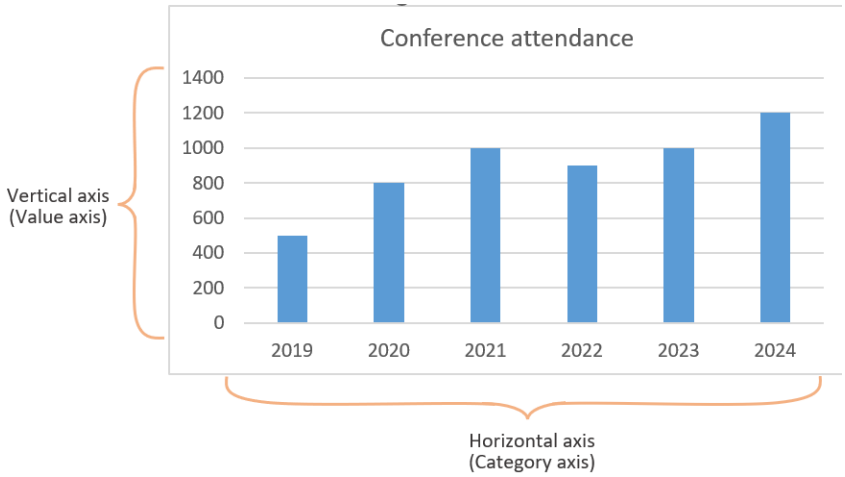
In school you might have learnt that there is an x-axis and a y-axis. Excel has these two axes as well, but they are called something different.

- The x-axis along the bottom is called the **horizontal axis**.
- The y-axis that runs up and down is called the **vertical axis**.

Each axis can either be a value axis or a category axis.

- A **value axis** represents numerical values. For example, a value axis can represent dollars, hours, duration, temperature, and so on. The vertical axis below is a value axis.

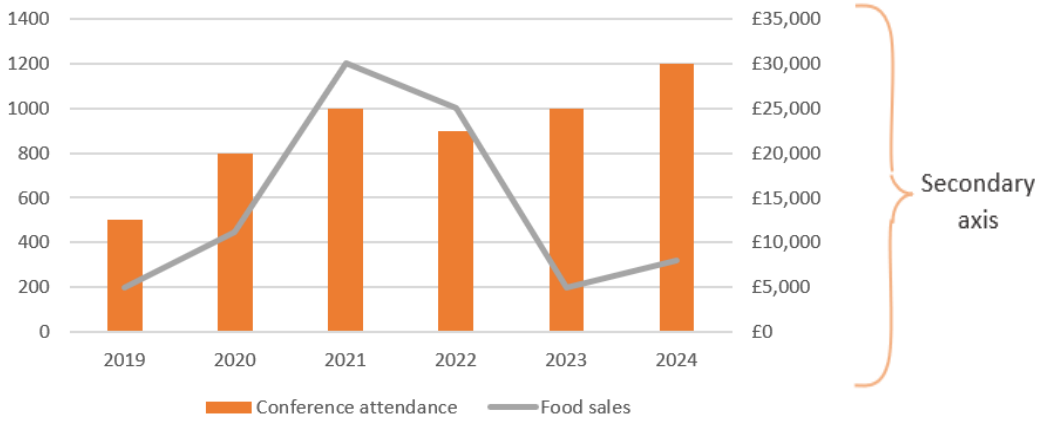
- A **category axis** represents things like dates, people names, and product names. The horizontal axis below has years so this is a category axis.



Secondary axes

You can also use a **secondary axis** in a chart. A secondary axis is an additional value axis that can show different values than the other value axis.

A popular example is shown below. It's the same as the chart created above, but it has an additional secondary vertical axis that represents the sales amounts for each month. Some would say that by having a secondary axis, you almost have 'two charts in one.' That's true. This chart is both a column chart and a line chart. This type of chart is called **Combo charts or combination chart**. Let's create a combo chart.



Combo chart

1. Select the data in cells A9:C15, and then click **Insert** > **Recommended Charts**.

2. At the top, click the **All Charts** tab and then click **Combo** at the bottom.
3. On the right, click the Secondary Axis checkbox for **Food sales**. Click OK.
4. Select the horizontal axis (x axis) and right click to select, **Select Data**. Click **Edit** below the "**Horizontal (Category) Axis Labels" (on the right)** and select the **Date** column in cells **A10:A15**. The dates are now present on the x axis. You can now click on the blue bars and delete the dates bars.

Reference material
Refer to **Guide to Microsoft Excel.pdf** for further Excel activity on Creating and Managing Charts on pages 149 - 153.

Pivot Tables

Summarise data

Guided activity:

Summarise data with Pivot Tables

1. Navigate to the **Pivot Tables** workbook.
2. Look at the Date, Salesperson, Product, and Amount columns. Can you quickly identify which product is the most profitable? Or which salesperson is the leading seller? That's where the PivotTable below can help. It can also help when working with large datasets.
3. When we created the PivotTable, we clicked a few buttons so that the data could be summarized. Now we know which product is the most profitable.
4. Now you'll pivot the data so that you can find out which salesperson is the leading seller. Right-click any cell inside the PivotTable, and then click **Show Field List**.
5. The PivotTable Fields pane appears. At the bottom of the pane, under **Rows**, click **Product** and then click **Remove Field**.
6. At the top of the pane, click the checkbox for **Salesperson**. Now you can see who's the leading salesperson.

Create a Pivot Table

Now you'll create the PivotTable yourself so that you know how to make one when you need to summarize data.

1. Click a cell inside the data, and then on the **Insert** tab at the top of the Excel window, click **PivotTable**.
2. In the dialog that appears, click **Existing Worksheet**, and then type A9 in the **Location** box. Click **OK**.
3. The **PivotTable Fields** pane appears on the right.
4. At the top of the pane, click the checkbox for **Product**. ☑ Product

When you do that, the Product field gets added to the Rows area at the bottom of the pane and the product data appears as **Row labels** in the new PivotTable.

5. At the top of the pane, click the checkbox for **Amount**. ☑ Amount

When you do that, the Amount field will get added to the Values area at the bottom of the pane. At the same time, the amounts are totaled for each product in the PivotTable.

6. Congratulations, you made a PivotTable.