What is Data Validation?
Data Validation allows you to restrict the data entered into a range of cells in an Excel worksheet. For example, if you have created a worksheet that others use, you need to ensure that only data that matches your requirements is entered into those cells, perhaps a range of numbers (e.g. between 10 and 20), or only specific text (e.g., Mr., Mrs, or Miss).

Simple Validation

1. Select the cell/s that you want validated.
2. Click on the Data tab.
3. Click on Data Validation button in the Data Tools group.

![Data Validation button](image)

4. The dialog box below appears.

![Data Validation dialog box](image)

5. The Settings tab provides the tools to select the validation criteria to be applied to the range of cells. As you make your selections, the dialog box changes depending on your choices in the Allow Box.

You can click OK at this point and validation has been applied to the range of cells initially highlighted.
Other Simple Validation Options

1. You can click the Input Message tab and specify a help message that will appear when any cell containing the validation criteria is clicked. The message will appear in a small pop up box.

   ![Input Message Example]

   1. Show input message when cell is selected
   2. When cell is selected, show this input message:
      - Title: Valid Entry
      - Input message: Only values between 10 and 20 will be accepted.

2. You can click on the Error Alert tab and specify the error message that will appear in the error dialog box if invalid data is entered. If no message is entered Excel displays its own error message.

   ![Error Alert Example]

   1. Show error alert after invalid data is entered
   2. When user enters invalid data, show this error alert:
      - Title: Data is Incorrect
      - Error message: Only a whole number in the range 10 to 20 can be entered in this cell.

3. Click OK when finished.
Note: We suggest that you apply cell formatting to the range to which you have applied Validation criteria, for example border all cells, and maybe fill them with a colour. This ensures that if you wish to change the criteria for the range, you select the correct range before altering the validation criteria. If you do not select the exact range, it will obviously affect data entry to the part of the range not changed, and therefore the whole validation process becomes corrupted.

Validation Lists

You can create a list of data in a column, on a sheet, to be used for Validation. Lists are usually used for text entries. You then select List in the Allow section, and then highlight your list on the sheet.

To use the steps below the list must exist on the same sheet as the range to which the Validation is to be applied:

1. Highlight the range you wish to validate.
2. Click on the Data tab
3. Click on the Data Validation button in the Data Tools group.
4. Select List from the Allow drop down list
5. Click into the Source field and drag over the list on the Sheet.
6. Click **OK** and the Validation is applied to the selected range.

You can of course add your Help pop up and Error message if you wish.

**Note:** We believe this method of using a list has some potential problems, for example there is every possibility that the list is visible to other users of the book, and they can therefore alter it. If a list is altered, the alterations become part of the Validation, thus potentially invalidating the data being entered. If you create the list in a column a long way to the right of the sheet, and you then wish to print the sheet, the list will print. I believe the best option is to hide the column so that altering the list, or printing, does not become a problem.
Validation Lists on a Hidden Sheet

Another option is to create the List on a separate sheet. This sheet can then be hidden and then other users cannot easily find and edit your List. If you wish to use this option there is one more step you have to take as Validation will now allow you to drag over a list on a different sheet.

Naming a List

To set up a list on a separate sheet to be used in Validation, the list has to be Named. To name a range you do the following:

1. Type the list you wish to use.
2. Highlight the range.
3. Click into the **Name Box** in the Reference Area. This is the box displaying the currently active cell.
4. The cell address will be highlighted, so you just have to type the name you wish to apply to your List.
5. Press **Enter** and the name will be applied to the highlighted range.
Using a Named List in Validation

Now that the list has been created and named, it can be used in Data Validation on any sheet in the book. To use the named list follow these steps:

1. Highlight the range which is to have the Data Validation applied.
2. Click on the **Data Validation** button on the **Data** tab in the **Data Tools** group.
3. Select **List** from the **Allow** drop down list.
4. In the **Source** box type the equals symbol and the Range Name you used to identify your list.
5. Click **OK** and the list will now be used for the Validation range.
Hiding a Sheet
As suggested earlier, it will better protect your validation list if the sheet containing that list is hidden. To hide a Sheet you do the following:

1. Right click on the tab of the Sheet containing the list.

2. Select **Hide** from the short cut menu.

Unhiding a Sheet
Should you need to access the list to change the criteria in the list, you will have to Unhide the Sheet. To Unhide a Sheet you do the following:

1. Right click on any Sheet tab in the book.

2. Select **Unhide** from the short cut menu.

3. Click on the name of the sheet you wish to unhide in the dialog box and then click **OK**.

The Sheet tab will again be visible, and you can edit the list as required.
Editing and Redefining a Named List

Should you need to change a list in any way, such as deleting an option, or adding more rows, you use the following steps:

1. If necessary unhide the Sheet or column that contains the list
2. Make all the required additions and/or deletions.
3. Click on the Formulas tab
4. Click on the Name Manager button in the Defined Names group
5. In the Name Manager dialog box click on the name of the Group you wish to redefine.
6. The bottom of the dialog box has a section Refers to which will become active.
7. Highlight the sheet name and the range, but leave the equals symbol unhighlighted
8. If necessary move the dialog box so that you can see your list, and just drag over the edited list.
9. Click the Tick button under the **Refers to** heading to apply the change.

![Refers to dialog box](image)

10. Click the **Close** button to complete the process.

![Close button](image)

You can now hide the sheet again, and save the book to complete your changes.