# MORE WOMEN IN RESEARCH

*'Learn and lead together'*

## Get Funded: Understanding Research Grants

# TOP
# 9
# EXCEL

**Features and Functions for Research Budgeting and Financial Management**

The features and functions highlighted below are useful when creating a budget and managing your research project in Excel. You will also find them handy in many other situations, providing a strong foundation on which to build your Excel skills.

# 1.

## Freeze panes:

**Freezing rows or columns in place allows you to scroll through your content while continuing to view the frozen cells.**
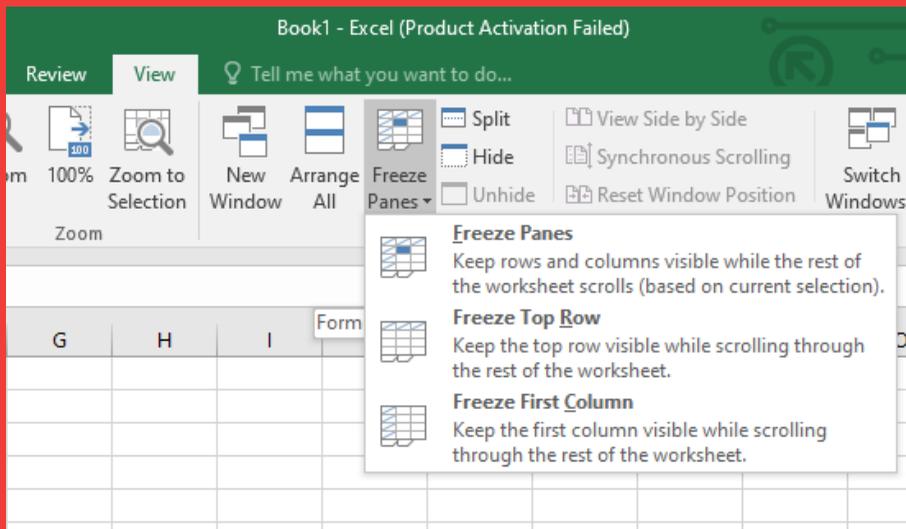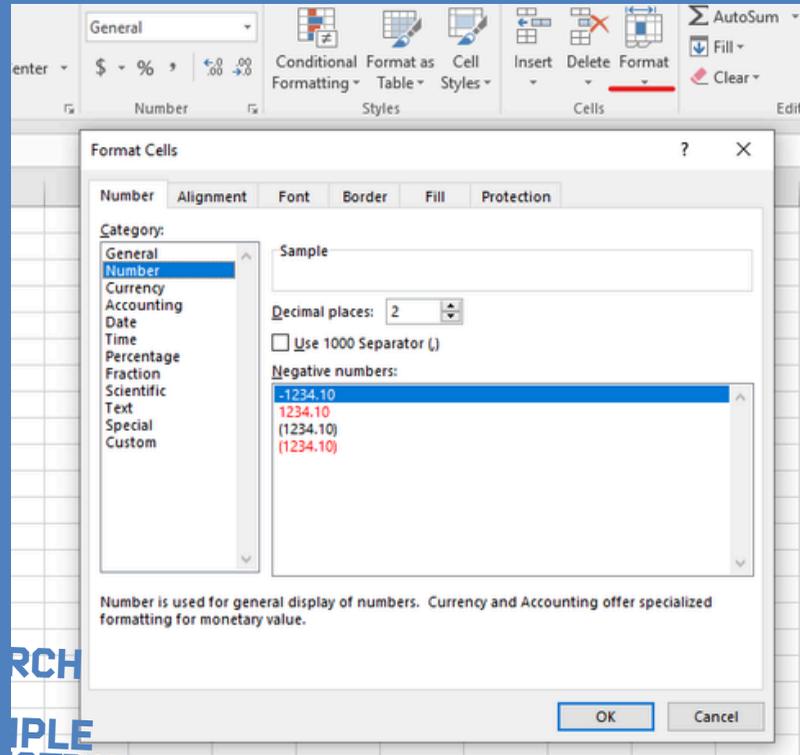


**Tutorial: <u>Microsoft Office Support – Freeze Panes</u>**

# 2.

## Formatting data:

You can apply number formatting to tell Excel exactly what type of data you're using, such as percentages (%), currency ($), dates, etc.



**Tutorial: <u>Microsoft Office Support – Formatting Data</u>**
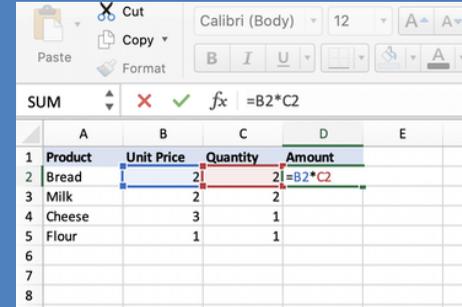
# 3.

## Merging and Centering Cells:

Merging cells is often used when a title is to be centered over a particular section of a spreadsheet.
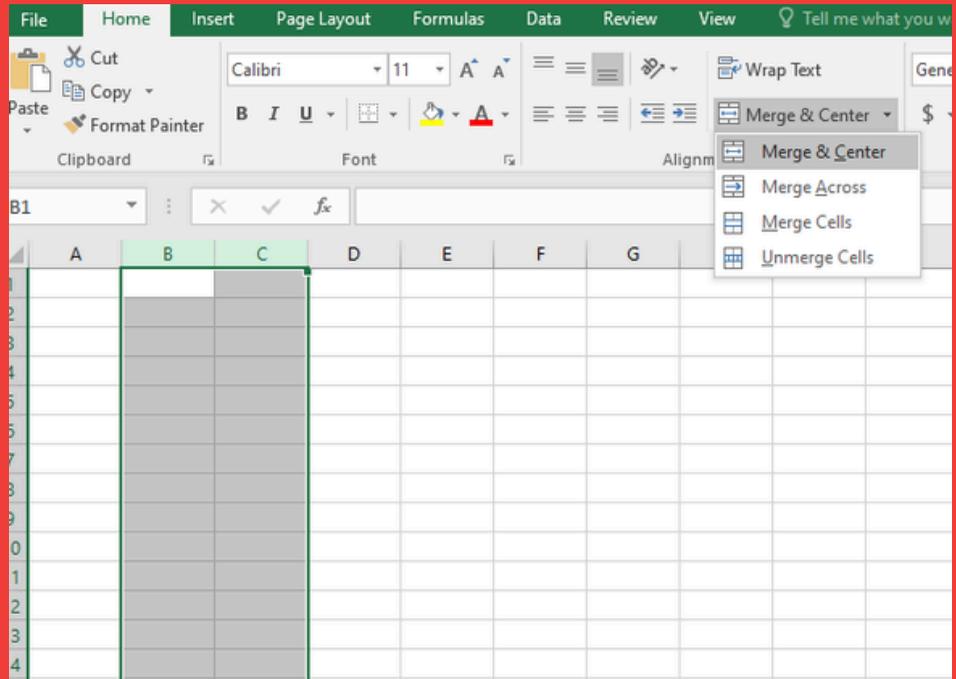
# 4.

## Cell Reference:

A cell reference refers to the value of a cell or a range of cells. For example, =C2 refers to Cell C2, while = C2:C18 refers to cells C2 through C18. Cell references point to the relevant data to be used in a particular formula or function. You may need to reference cells in the same worksheet, different worksheets, or even a different workbook. In addition, it is important to know the difference between relative cell references, which change based on location, and absolute references, which always remain constant. Follow the links below for information on how to create and use these kinds of cell references.
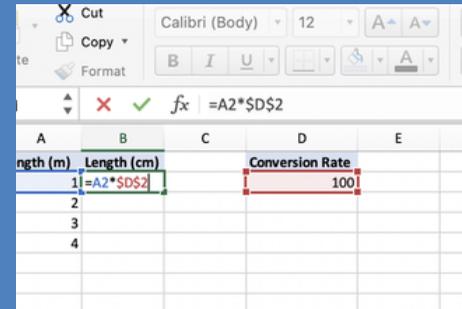
Tutorial: <u>Referencing Cells in the Same or Different Worksheet</u>
Tutorial: <u>Relative, Absolute and Mixed References</u>
Tutorial: <u>Referencing Cells in a Different Workbook</u>

# 5.

## Formulas and functions:

Formulas are expressions that perform calculations based on values in a cell or range of cell, for example: =A1+A2+A3. Functions are predefined formulas in Excel, for example: =SUM (A1:A3). This function will add all the values in cells A1 to A3, achieving the same result as the manual formula above more efficiently.

Some functions that are useful when creating a budget include:
1. **SUM: adds the values in your selected range of cells**
2. **AVERAGE: calculates the average of a range of cell values.**
3. **MAX and MIN: find the maximum number and the minimum number in a range of values.**
4. **COUNT: counts all cells in a given range that contain numeric values**
5. **COUNTIF: counts all cells in a given range that meet the specified criteria**
6. **SUMIF: adds all values in a given range that meet the specified criteria**

 **You can find information on other Excel functions here: Microsoft Office Support - Functions**

# 6.

## Conditional formatting:
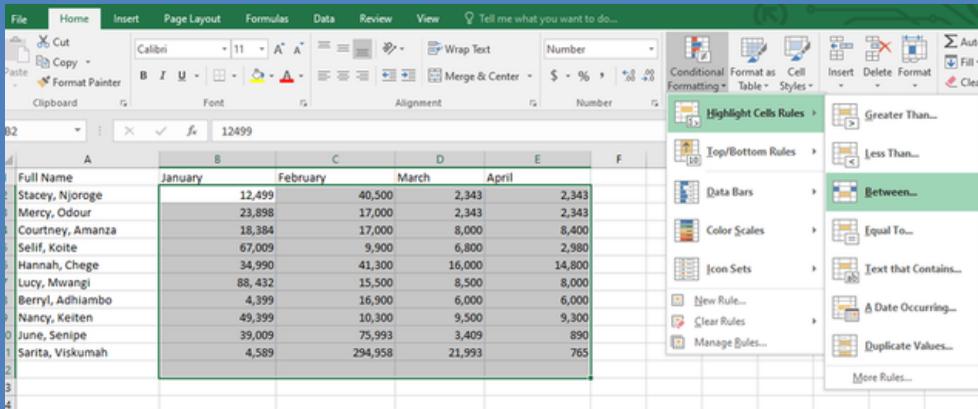


**Conditional formatting provides a way to visualize data and make worksheets easier to understand. It allows you to automatically apply formatting, such as colors, icons, and data bars, to one or more cells based on the cell value using a pre-determined conditional formatting rule.**

**Tutorial: GCF Global – Conditional Formatting**

# 7.

## Transpose:

**The transpose function allows you to rotate data and rearrange it from rows to columns, or vice versa.**
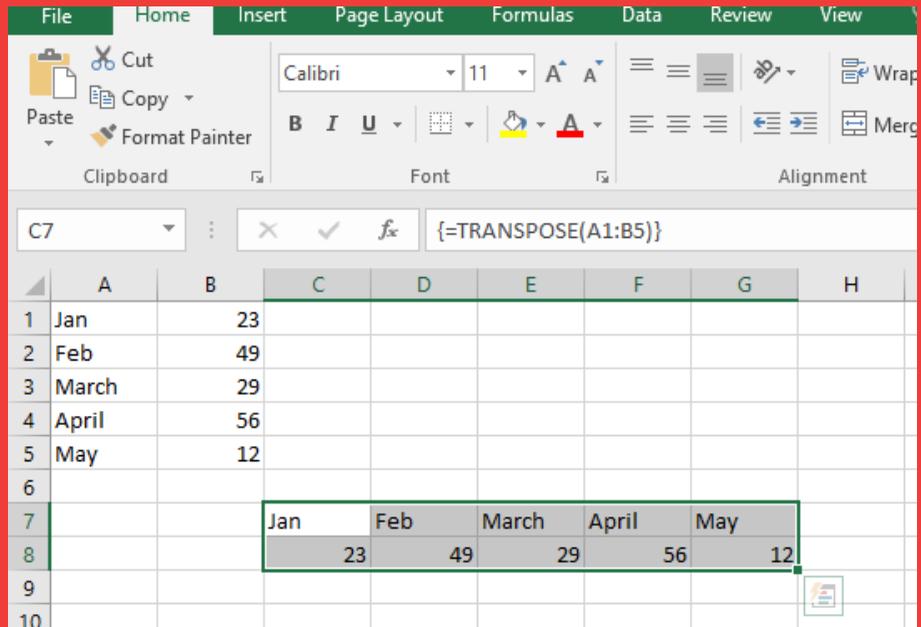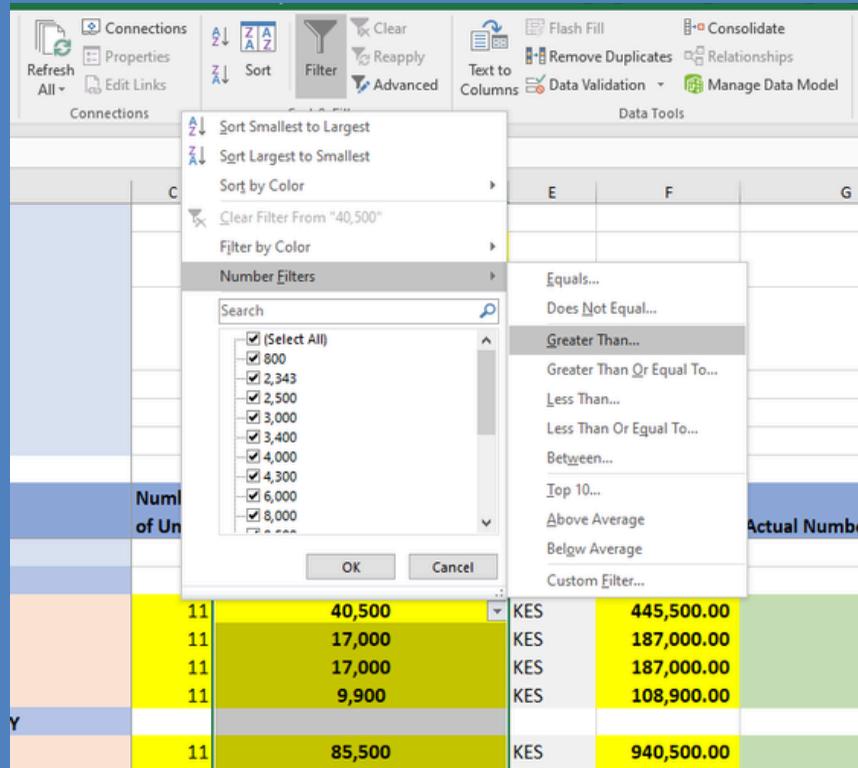


**Tutorial: <u>Microsoft Office Support – Transpose Function</u>**

# 8.

## Filters:
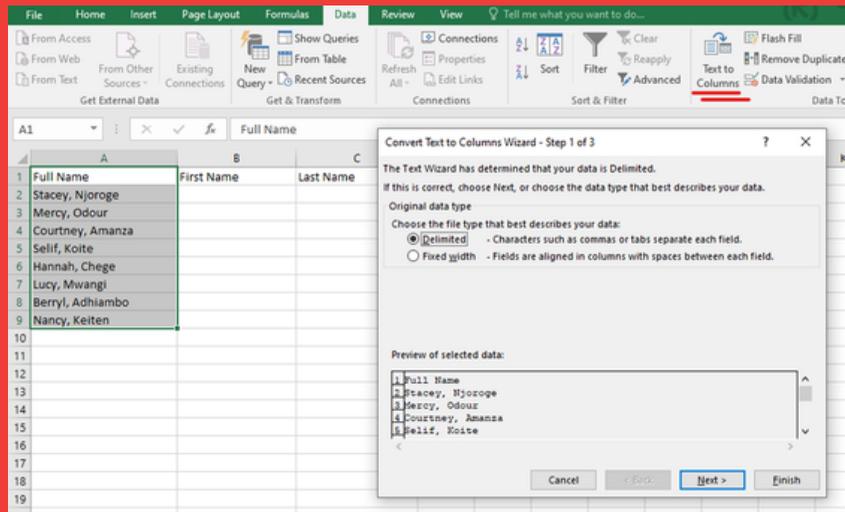
Excel's AutoFilter function, as well as its built-in operators such as greater than or equal to, enables one to control which data is visible.



**Tutorial: Microsoft Office Support – Filter Data**

# 9.

## Convert data in text document to Excel columns:

When copying delimited text, such as data that is separated by commas, use the Text to Columns feature to split the data into separate columns. In the example shown in the figure below, first and last names will be split into their individual columns.



**Tutorial: <u>Microsoft Office Support – Filter Data</u>**

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