

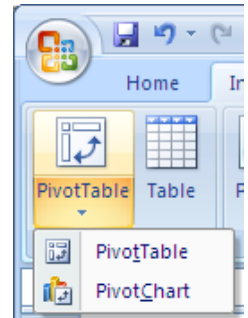
A Pivot Table is a way to present data quickly.

Use a Pivot Table to see children’s favourite subject at school.

Open the Excel spreadsheet **Pivot Tables in Excel.xls**. This is a random sample of size 50 taken from the *CensusAtSchool* questionnaire results (2010-2011). (See questionnaire 2010/11 and Coding Sheet 2010/11.)

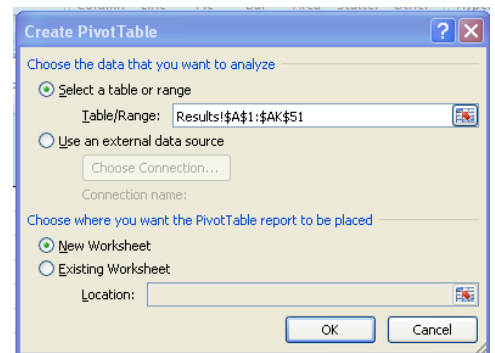
Save this Excel spreadsheet.

In Excel select **Insert/PivotTable/PivotTable**



Click on **Select a table or range** (the whole data set should be included. There is no need to select any cells before inserting a pivot table).

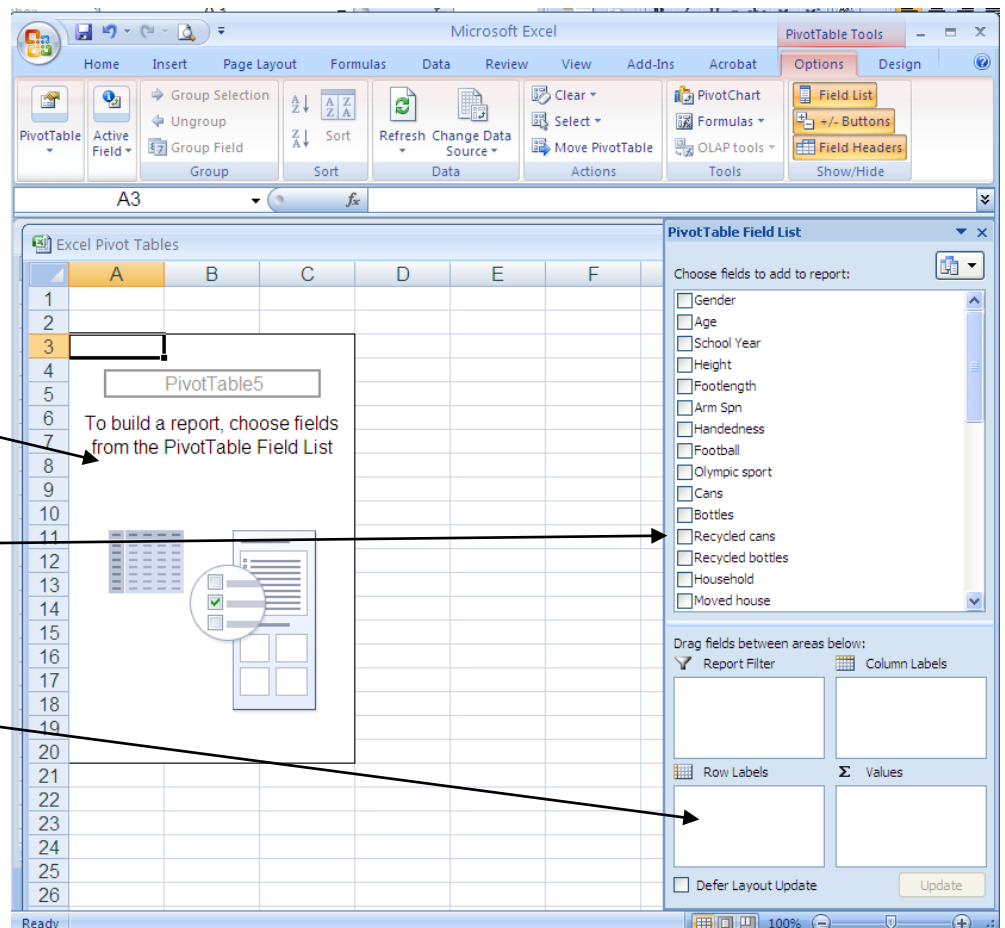
Click on **New Worksheet/OK**



Your screen should have an area to build your report

A list of all the variables in the spreadsheet

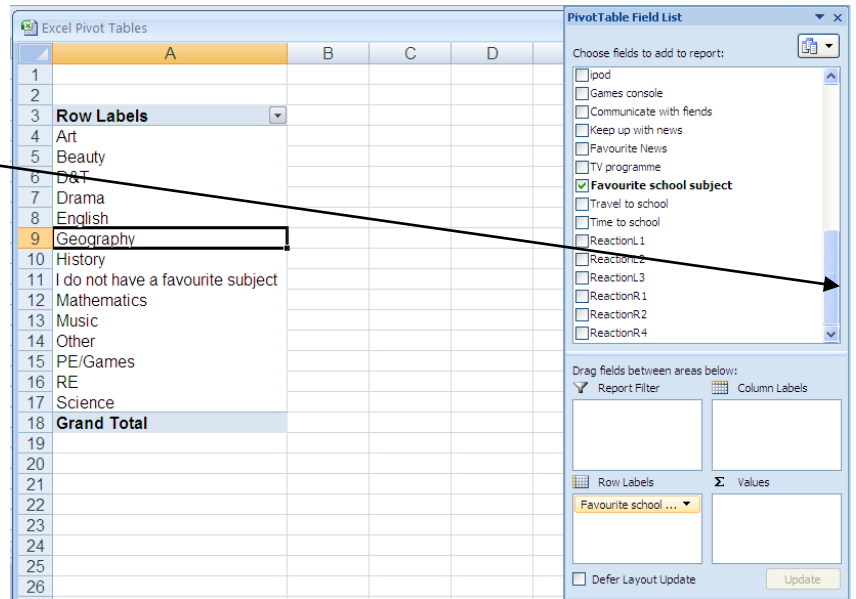
Boxes where you can drag the variables



Select **Favourite school subject** in the Pivot Table Field List (you may need to scroll down).

Make sure your cursor is in the table in Column A. If the cursor is outside the table the variables on the right hand side will disappear.

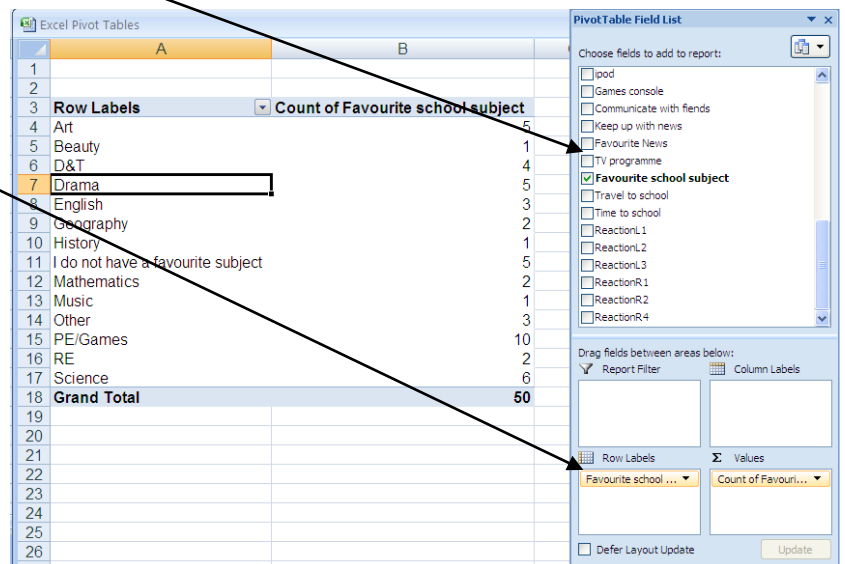
Click on **Favourite school subject** (so it is ticked). This should appear in the Row Labels.



Drag **Favourite school subject** From the Pivot Table Field List to the Σ Values.

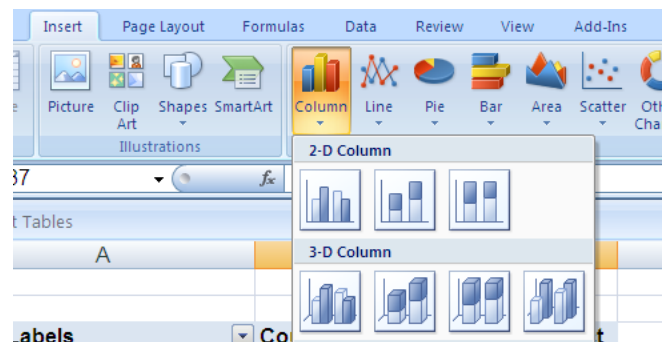
The frequencies appear in the table in column B.

PE has the highest frequency. This would be easier to see in a chart.



To plot a bar chart from a pivot table.

Insert/Column select the first graph in **2-D Column**

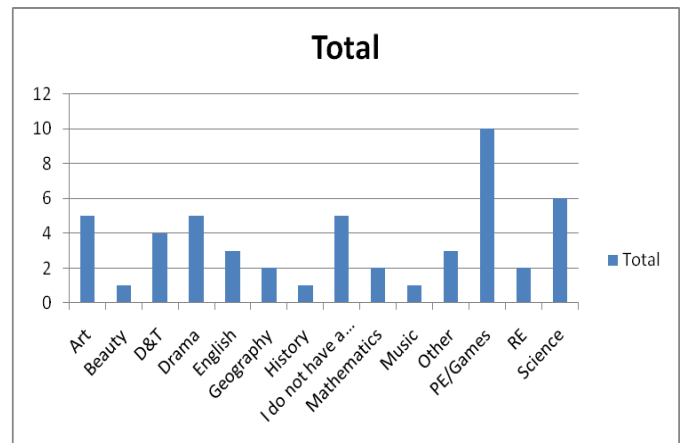


The chart that appears is not very well presented.

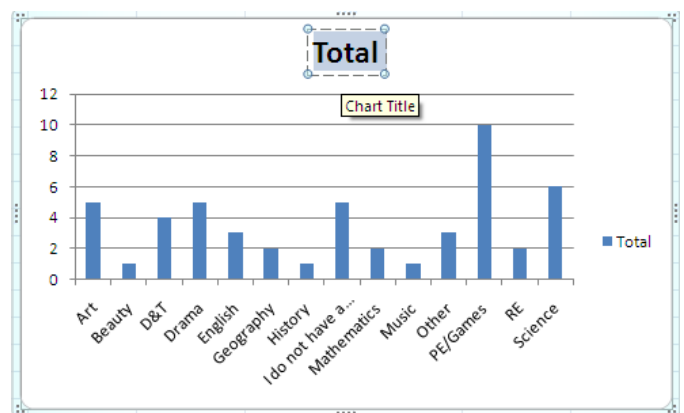
To improve this right click on the parts of the graph you would like to change.

For example:

To change the title

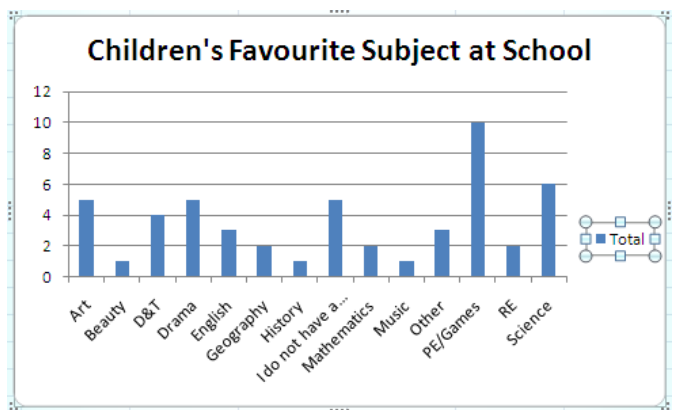


Click on the title and type the title you would like/Enter.



Also we do not need the legend on the right hand side of the chart.

Click on the legend/Delete



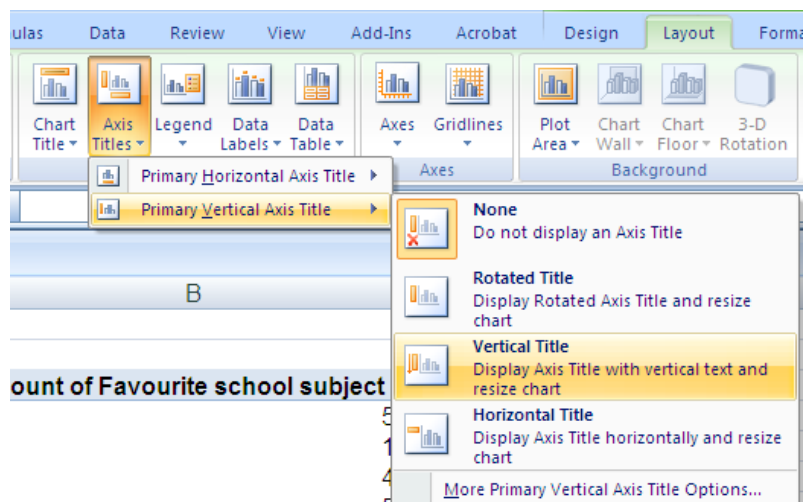
To add the vertical label

Click on the chart/Layout

Select Axis Titles/Primary Vertical Axis

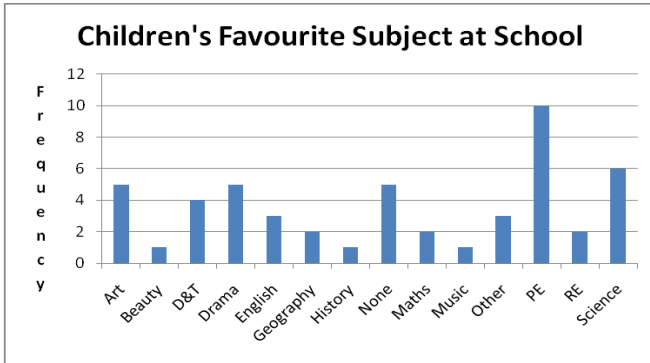
Title/Vertical Title

Type Frequency/Enter



You may like to shorten some of the labelling. For example change Mathematics to Maths, PE/Games to PE or I do not have a favourite subject to None. To do this simply change these subjects in the table in column A.

	A	B
1		
2		
3	Row Labels	Count of Favourite school subject
4	Art	5
5	Beauty	1
6	D&T	4
7	Drama	5
8	English	3
9	Geography	2
10	History	1
11	None	5
12	Maths	2
13	Music	1
14	Other	3
15	PE	10
16	RE	2
17	Science	6
18	Grand Total	50



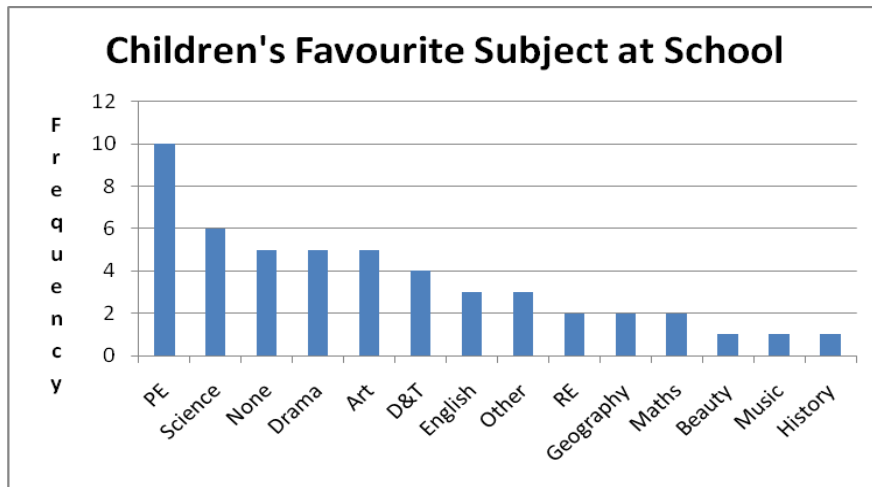
Also it is good practice to order the bars from high to low frequency.

Click on the chart
The PivotChart Filter Pane will appear.
Click on the arrow at the right hand side of **Favourite school subject**
Select **More Sort Options**

Select **Descending (Z to A) by:**
Click on the arrow on the right hand side of **Favourite school subject**

Select **Count of Favourite school subject/OK**

And your chart is finished.



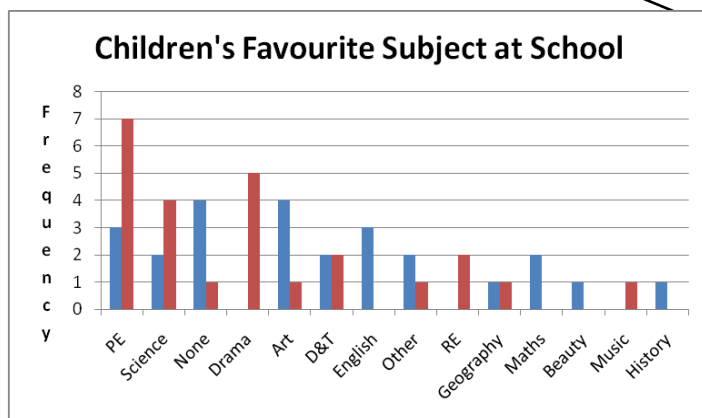
So for this sample of 50, the children's favourite subject at school is PE.

Is boys' favourite subject at school the same as girls'?

Click on **Gender** in the Pivot Table Field List

The Gender tab will appear in the **Axis Fields (Categories)**. This needs to be moved to the **Legend Field (Series)**.

Drag **Gender** tab from **Axis Field (Categories)** to **Legend Field (Series)**



To show blue represents girls and red represents boys we need to add a legend.

PivotChart Filter Pane

Active Fields on the PivotChart

- Report Filter: Favourite school subject
- Axis Fields (Categories): Favourite school subject
- Legend Fields (Series): Gender
- Values: Count of Favourite school subject

PivotTable Field List

Choose fields to add to report:

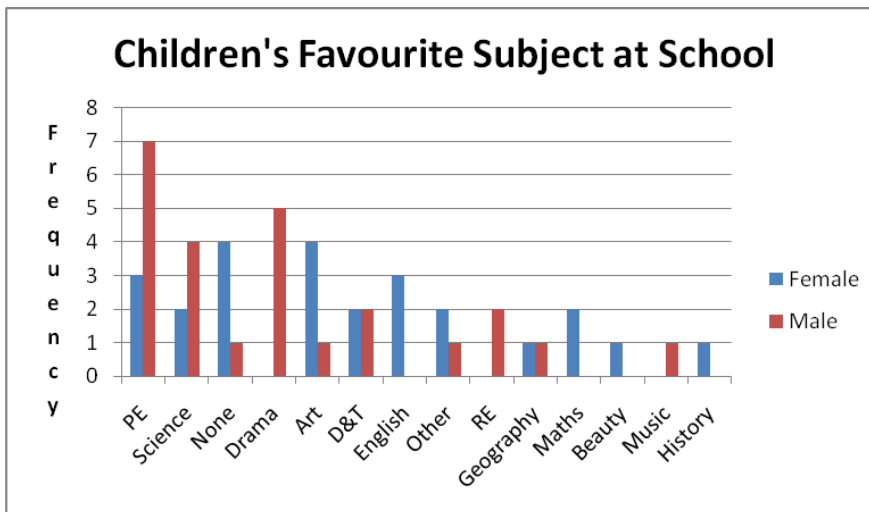
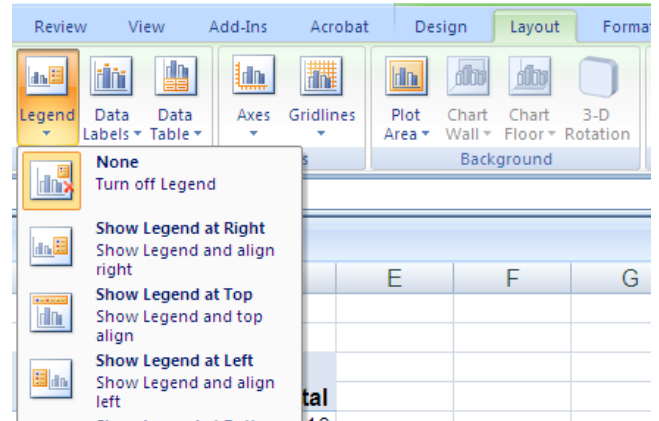
- Age
- Arm Spn
- Bottles
- Cans
- Cars
- Communicate with friends
- Computer with Internet
- Computer without Internet
- Favourite News
- Favourite school subject
- Football
- Footlength
- Games console
- Gender
- Handedness
- Height
- Household
- ipod
- Keep up with news
- Mobile with Internet
- Mobile without Internet
- Moved house

Drag fields between areas below:

- Report Filter: Favourite school subject
- Legend Fields (Series): Gender
- Axis Fields (Categories): Favourite school subject
- Values: Count of Favourite school subject

Defer Layout Update Update

Select **Layout/Legend/Show Legend at Right**.



For this sample of children, boys seem to enjoy PE more than girls, boys seem to like drama and girls like English.

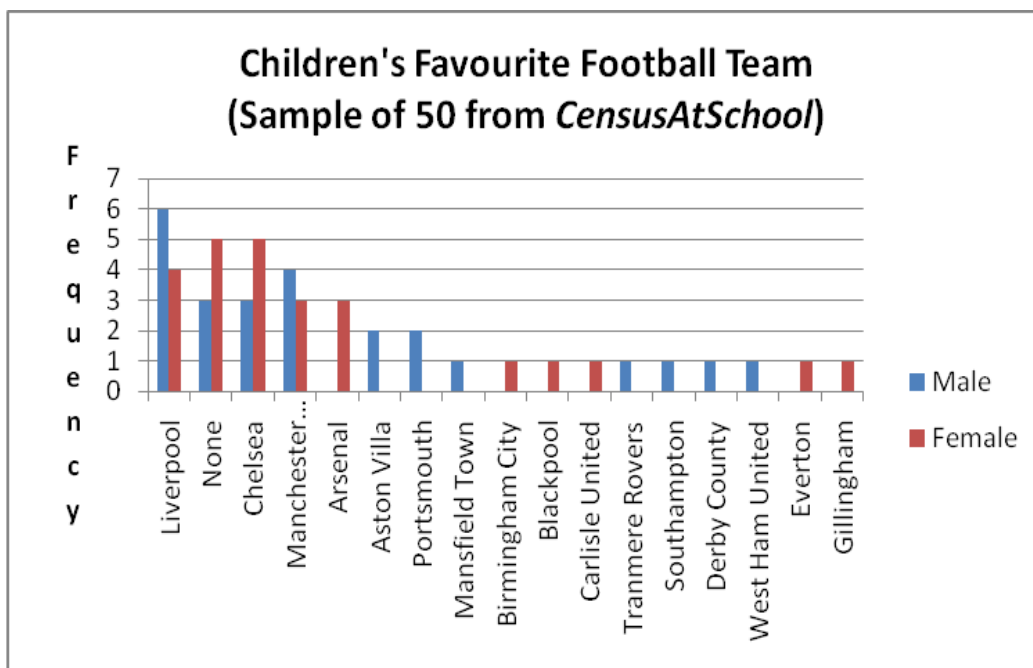
Further investigations

If you wish to investigate the most popular football teams for girls and boys you can:

Unclick **Favourite School Subject** and click **Football**.

The graph will update itself but you will need to change the title.

You always need to make sure one variable is in Axis Field (Categories) and one in Legends Field (Series). Also you need to drag one of these variables into Σ Series.



More girls than boys do not support any UK football team.
 For this sample Liverpool seems to be the most popular team.
 There do not seem to be any male Arsenal supporters.
 Is this the pattern nationally?