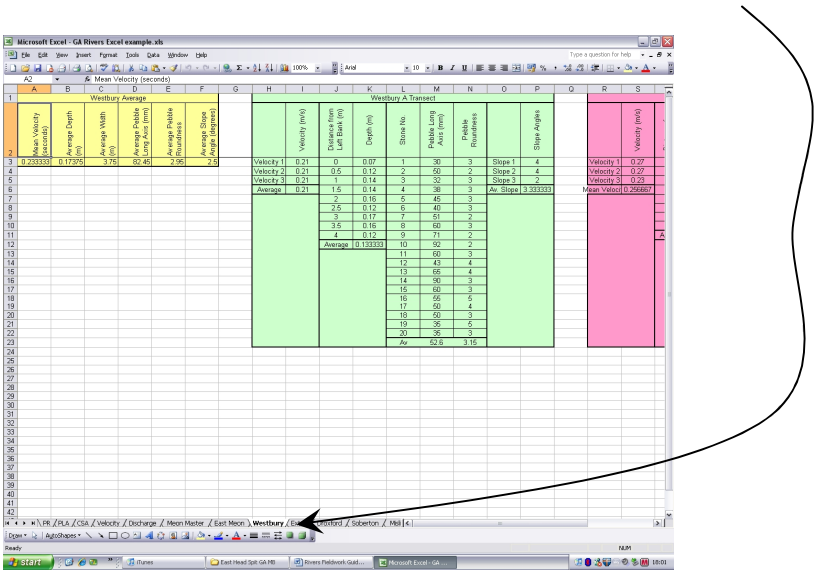
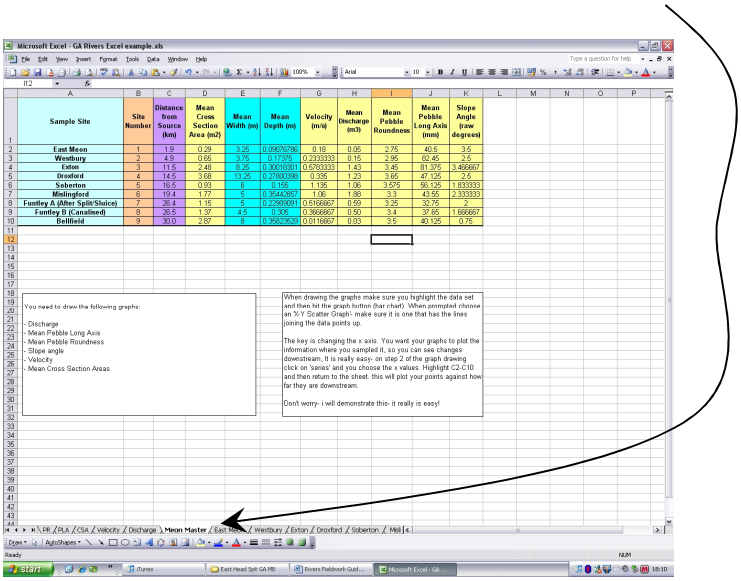
Section 2: Data collection

Starting with ICT: the data collected in the field needs to be transferred to the excel file. The file Rivers Fieldwork Example is already set up for you use. When opened there are a number of worksheets along the bottom- there is one for each site and the data needs to be inputted from the recording sheet



The green table is for transect A and the pink table is for Transect B. The yellow table automatically provides averages of the two transect- it won't average the widths and depths as these will be an unknown number of measurements at each site. Advanced users will know how to get the computer to calculate the averages using the **Σ** function, but it can be done manually.

Once the yellow tables have been completed, the data can be inputted into the 'Master' spreadsheet- this is where the graphs will be drawn from, it is called 'Meon Master' in this example. For advanced users of ICT: this would have been done in the field.



Once the data has been inputted into this sheet, the data display can take place. However, the cross section area and discharge column has data in them due to Excel sheet being told what to do.

E.g. to calculate the mean cross section area (column D):

- **Click on the square D2**.
- Click the **=** button on the keyboard (Excel will recognise you want to type a formula)
- Type **e2*f2** and then press **enter**.
- Once you have done this **click** back on the **square d2**, **press 'ctrl'** and **'c'** at the same time this will copy the formula.
- Then **press the shift button** (arrow below the **enter** or **caps lock** button) and **keep it pressed down**.
- With the shift button pressed **click the down cursor arrow** until all the necessary cells are highlighted black.
- Let go of the both button and then **press 'ctrl'** and **'v'** at the same time- this will paste the values for the whole column.

Repeat this process for discharge, but the calculation would be **=g2*d2**

N.B. if you used an orange over a 10 metre stretch, you would need an extra column (would be L in the table above) for inputted raw seconds taken and then in the velocity column (G) type the following formula **=L2/10**. Repeat the steps as outlined above to copy and paste the formula for the whole column

If you used a hydroprop the Owens and Boyd calculation is =0.0277+(3.2805/seconds) to find the calibrated velocity. Therefore, you would type the following in the velocity column **=0.0277+(3.2805/L2)**

One final thing for this worksheet- column C is the distance from source. You would calculate this on an OS map- more on this in the data display section.

This may appear a little complicated for those just starting out with ICT, but it really is just a case of practice.