

# Excel

# Spreadsheet functions

## **Objectives – Week 2**

By the end of this session you will be able to :-

- Resize columns
- Rename tabs
- Add headers and footers
- Format cells
- Lock cell references
- Sort data
- Filter data

# Change the look of Worksheets

## Resizing columns

Open the trip workbook on the R: drive, in the excel folder. You will see details about a trip being run – names of attendees and amounts paid.

- To see all the data contained within the cells click into the top left hand grey square to highlight the whole worksheet
- Move your mouse to a boundary line between any two columns until you see a black resizing arrow.
- Double click
- The highlighted columns will then resize to fit the data

	A	B	C	D	E
1	Cost per S	50			
2					
3	Surname	Forename	Installment	Installment	Installment
4	Acaster	Stephanie	15		
5	Broughton	Alexander	10		
6	Chester	Jordan	15		
7	Clayton	Sam	20		
8	Constantin	Amy	10		
9	Dennis	Samuel	15		

## Renaming Tabs

- To rename a tab (particularly useful if you are using more than one worksheet within the workbook) right click on the tabs name (sheet1) then chose Rename from the Menu, left click once
- Type Sales
- Press Enter
- The tab will be renamed

14	Heame	Daniel	15		
15	Holmes	Sophie	20		
16	Humphreys		15		
17	Jude		15		
18	Lishman		10		
19	Parker		10		
20	Paton		15		
21	Phillips		15		
22	Rose		20		
23	Townsend		10		
24	Turpin		10		
25	Watts		10		

## Headers and Footers

- To add a Header or Footer to your sheet select, View > Header and Footer from the menu, you will see the box to the right
- Click on Custom Header
- You will then see the header box as below

Header

To format text: select the text, then choose the font button.  
To insert a page number, date, time, file path, filename, or tab name: position the insertion point in the edit box, then choose the appropriate button.  
To insert picture: press the Insert Picture button. To format your picture, place the cursor in the edit box and press the Format Picture button.

Left section:                      Center section:                      Right section:

OK                      Cancel

- Click into the centre section and type your title “London Trip”
- Highlight the text and click on the font icon

Page Setup

Page   Margins   Header/Footer   Sheet

Header: (none)

Footer: (none)

Print...   Print Preview   Options...

Custom Header...   Custom Footer...

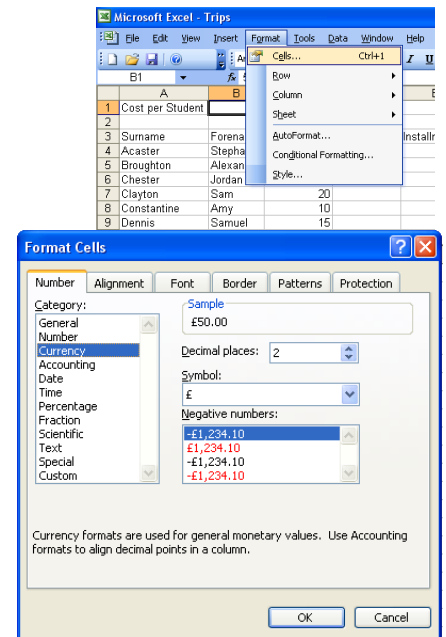
OK   Cancel

- Change the font to Arial size 12 bold
- Click OK twice
- Click on Custom Footer
- Add the date to the right section using the date icon
- Add the workbook name to the centre section using the workbook icon

## Formatting Cells

As this worksheet contains amounts of money we can format the cells to show the figures as currency.

- Highlight Cell B1
- From the menu bar select Format > Cells
- You will see a Format Cells box as right
- The first tab (Number) is where to change the category of the text within the highlighted cell(s)
- Click on the various options available and look at the right section to see a preview and other options
- When you have looked at them all, select Currency, then change the decimal places to 0
- Click on the other five tabs to see all the other options available within Format
- Click OK when you have finished
- Cell B1 should now contain **£50**



- Complete the same formatting for rows 4 to 28 of columns C to G (inclusive)
- Using the handouts from last week (if necessary!) calculate the formula for column F

## Locking Cell References

To calculate the formula for column G you need to take the total from column F away from the total cost (cell B1). In order to be able to copy the formula down the column you need to 'lock' the cell reference B1 otherwise the cell reference will increase for each row.

- In G4 type =
- Click into B! And then press F4 (pressing F4 in a cell locks the cell reference in the formula)
- Type -
- Click into cell F4 or type F4
- Look at the formula bar to see the formula
- Note the \$ signs within the B1 reference – this is to indicate the reference has been locked
- Press enter to see the formula result in G4

	A	B	C
1	Cost per Student	£50	
2			
3	Surname	Forename	Installment 1
4	Acaster	Stephanie	£15

- Copy the formula for the remaining rows in column G
- Click into any of the cells in column G and check that it still has the cell reference for B1
- Save the document to your desktop, using File > Save As

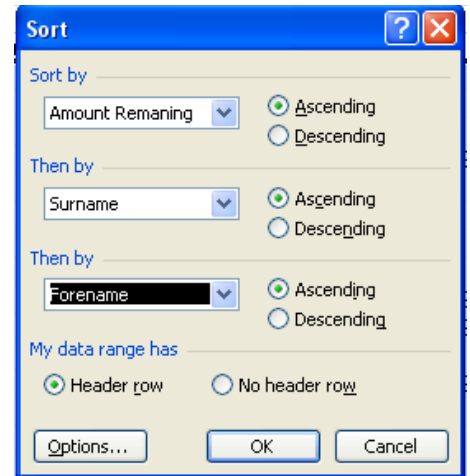
	A	B	C	D	E	F	G	H
1	Cost per Student	£50						
2								
3	Surname	Forename	Installment 1	Installment 2	Installment 3	Total Paid	Amount Remaining	
4	Acaster	Stephanie	£15			£15	£35.00	
5	Broughton	Alexander	£10			£10	£40.00	
6	Chester	Jordan	£15			£15	£35.00	
7	Clayton	Sam	£20			£20	£30.00	
8	Constantine	Amy	£10			£10	£40.00	
9	Dennis	Samuel	£15			£15	£35.00	
10	Doran	Adam	£15			£15	£35.00	
11	Draper	Tamar	£10			£10	£40.00	
12	Gittings	Samantha	£20			£20	£30.00	
13	Griffiths	Jack	£20			£20	£30.00	
14	Hearne	Daniel	£15			£15	£35.00	
15	Malone	Patrick	£20			£20	£30.00	

- Some more payments have been made; add the details for the second and third instalments columns in the worksheet (note how the figures in cells with formula in, change as you add these details.)

# Sorting and Filtering

Cost per Student	£50		
Surname	Forename	Instalment	Paid
4	Acaster	Stephanie	£15
5	Broughton	Alexander	£10
6	Chester	Jordan	£15
7	Clayton	Sam	£20
8	Constantine	Amy	£10
9	Dennis	Samuel	£15
10	Doran	Adam	£15
11	Draper	Tamar	£10
12	Gittings	Samantha	£20
13	Griffiths	Jack	£20
14	Hearne	Daniel	£15
15	Holmes	Sophie	£20
16	Humphreys	Amy	£15
17	Jude	Alexander	£15
18	Lishman	Demi	£10

- To sort the data by Amount Remaining click somewhere within the data, then from the menu bar select Data > Sort
- The Sort box (as right) will show
- In the Sort By box use the arrow to see all the headings to sort by; select Amount Remaining
- Then sort by Surname then Forename (in the Then By box)



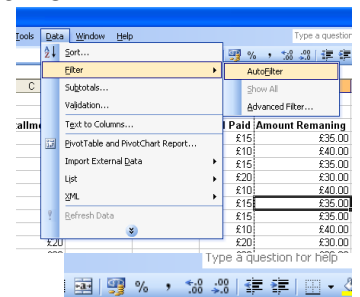
- Note the My List has section, which shows the Header row option, has been selected. If you ever try to sort and the column headings don't show in the boxes, check that this box has been selected

You can also use the same process to sort in descending order (it will always default to ascending) and there are icons on the tool bar ( ) but they are more restrictive than this method.

- Now sort the data into ascending order by the amount of the 1<sup>st</sup> Instalment, then by Surname, then by Forename
- Now sort the data into ascending order by Surname then by Forename

You can apply filters so that only certain data shows

- Click somewhere within the data, then from the menu bar select Data > Filter > AutoFilter
- Arrow Boxes will appear in each column title
- Click on the arrow in the Amount Remaining column and select £30 to see all the students who have paid £20



You will see the arrow in the Amount Remaining column has become blue – this indicates that there is a filter on this column

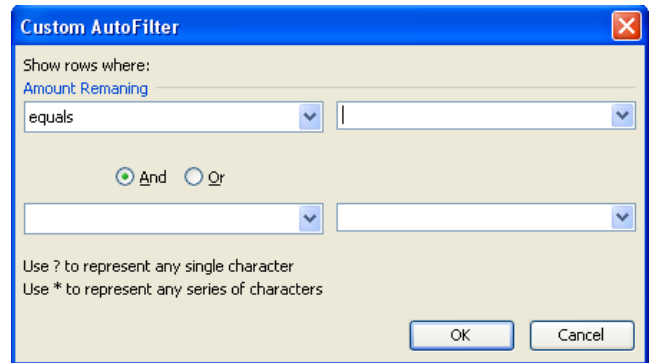
Total Paid	Amount Remaining
£15	£35.00
£10	£40.00
£15	£35.00
£20	£30.00
£10	£40.00
£30.00	£35.00
£15	£35.00
£15	£40.00
£10	£40.00
£20	£30.00
£20	£30.00
£15	£35.00
£20	£30.00

Remember you will need to remove a filter before applying another one – click onto the blue arrow and select (All) to remove the filter from the column.

- Filter the data to show students who paid £15 for their first instalment, remove the filter
- Filter the data to show students who have paid £10 so far, remove the filter
- Filter the data to show students who have not made a second instalment, remove the filter

For more advanced filtering options:-

- Click onto the arrow in the Amount Remaining column and select (Custom...)
- Under Amount Remaining use the arrow key to select does not equal
- In the box to the right type £0
- Click on OK to see all the students who have not paid in full
- Remove the filter



- Use the custom filtering option to filter the Total Paid column to show amounts less than £50; remove the filter
- Apply a filter to show students Surname begins with M; remove the filter
- Apply a filter to show students whose Surname begins with F and who owe £30; remove both filters

You have now applied a filter on two columns (you can filter every column on a worksheet if necessary).

# Excel Practice 1

Open the worksheet named Sandwiches – Costs and complete the following exercises:-

- Insert a column between each of the days of the week
- Type a column heading Profit into each of these new columns and make the text bold
- Format the cells in your new Profit columns to Currency with 2 decimal places
- Resize all the columns so that you can see the headings
- Calculate the profits for all the sandwich sales each day
- Sort the data alphabetically by sandwich name
- Add today's date to the footer
- Name the worksheet tab Sales
- Ensure the data fits onto one landscape page and print it out
  
- Filter the data to show only sandwiches that have cheese in them
- Print this out