# Designing a Crossword Puzzle in Microsoft Excel

1. On graph or blank paper, sketch out your crossword puzzle. You'll need to know how many columns wide your puzzle will be and how many tall. For example, this puzzle is 16 letters wide & 13 letters tall:

2. Open Microsoft Excel.
3. First, you are going to set up area for your puzzle. Select the columns and rows that will contain your puzzle. You might want to select additional columns and rows to allow for headings, graphics, etc. For example, for the puzzle above, you might want to select columns A-R and rows 1-16 – this would allow one extra column to the left & right of the puzzle and one row above and below the puzzle as well as a row for the title of the puzzle.
   a. Change the width of the columns that will contain your puzzle by going to **Format** & then **Column Width**. Change the width to be 4.00.
   b. Change the height of the rows that will contain your puzzle by going to **Format** and then **Row Height**. Change the height to be 24.00
   c. You can now unselect the rows and columns.
4. The next thing I recommend doing is setting up the actual boxes for the words. To do this, select the cells that will contain one of the words. Using our sample crossword, to set up the boxes for the word *monitor*, select cells G3 through G9. Then click select option of the borders icon and select the All Borders option (it looks like a box with a cross in it). Continue selecting cells for each word – for example, select cells F4 through M4 for the word computer, etc.
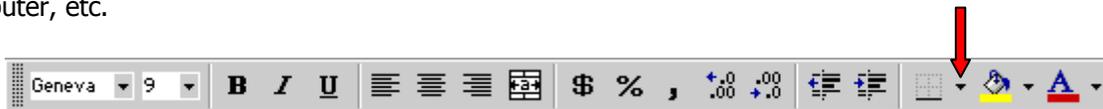
5. Next, you are going to format one of the boxes so that the number for the clue is in the upper left hand of the box. For example, to add the number of the clue for the word *monitor* click in cell G3:
   a. Select **Format** and then **Cells** and then select the **Alignment** tab.
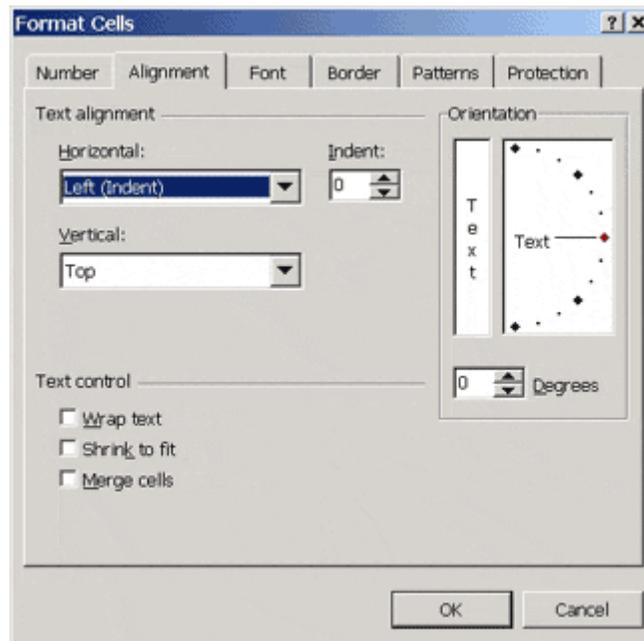
   b. Change **Text Alignment** – **Horizontal** to **Left (Indent)**
   c. Change **Text Alignment** – **Vertical** to **Top**
   d. Select the **Font** tab and change the font size to 8 and then click **OK**.
   e. Type a 1 in the cell.
6. Format the other clue cells and type in the other numbers for your puzzle. You do not need to format all of the cells – just the ones that have the clue numbers in them.
7. Add a title for your puzzle above the puzzle. Use **Format** / **Cells** / **Alignment** / **Merge Cells** to allow your title to cross multiple cells. You can set the font, font size & color and select center alignment for your title.
8. Type your clues below your puzzle. Insert text boxes using the text box icon on the drawing toolbar. If your drawing toolbar isn't displaying, select **View / Toolbars** and click on Drawing to show that toolbar. The text boxes will float above your columns & rows and will allow you to format the text as needed. Here are the clues for our sample puzzle:

ACROSS:	DOWN:
1. An electronic machine that takes in data, processes data & outputs information. 2. A small picture on the screen that you double-click to run a program. 3. The input device used to move the cursor on the screen. 4. A program that lets you look at web pages. 5. The parts of the computer you can touch.	1. The output device that resembles a TV screen. 2. Random Access Memory – memory chips that store data in the computer while it is turned on. 3. The output device that allows you to hear sounds, words & music. 4. The input device that allows you to type information into the computer.

9. You can optionally fill in unused cells with black (or any color of your choice) to make this look more like a real crossword puzzle. Just select those cells and use the Flood Fill Bucket to add color.
10. You can also add clipart to decorate your puzzle. For your actual book report, you will need to print out your puzzle and draw your art since that is the requirement of the assignment.

Now, you can print your crossword and use a pen to fill in the answers or you can type your answers in to Excel:

11. Format all cells except the ones with numbers in them. Select the first cell you wish to format and then hold down CTRL and click in all of the others you want to format. Set your font size to around 20, you may want to bold the text and click on center alignment for the cell.
12. Turn on Caps Lock and type in all of the answers except the letters in the cells with the numbers in them.
13. Now, insert a text box and size it so it is the same size as one of the letter cells. Make sure there is NO fill and no outline on the outside of the text box. Set the font size, bold property and center the same as you did for your cells in the crossword.
14. Copy the text box for as many numbered cells as you have.
15. Position each of the text boxes over one of the numbered cells and type in the letter that goes in that cell.

Some Free Sites or Programs you can use to create crosswords:

If you don't have Excel at home or are confused by the instructions, you can make your crossword by hand on graph paper or use one of the sites below to create a crossword puzzle from your words and clues.

- http://www.armoredpenguin.com/crossword/
  This one is fun because it can be solved online too or you can get the answer sheet as a PDF & print it.
- http://www.theteacherscorner.net/printable-worksheets/make-your-own/crossword/crossword-puzzle-maker.php
- http://www.edhelper.com/crossword.htm
- http://www.puzzle-maker.com/CW/
- You can download and install a freeware program to create crossword puzzles at:
  http://www.eclipsecrossword.com/ - This works on Windows Only.

Parts of the Computer

ACROSS:

1. An electronic machine that takes in data, processes data & outputs information.
2. A small picture on the screen that you double-click to run a program.
3. The input device used to move the cursor on the screen.
4. A program that lets you look at web pages.
5. The parts of the computer you can touch.

DOWN:

1. The output device that resembles a TV screen.
2. Random Access Memory – memory chips that store data in the computer while it is turned on.
3. The output device that allows you to hear sounds, words & music.
4. The input device that allows you to type information into the computer.

Parts of the Computer

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      A   B   C   D   E   F   G   H   I   J   K   L   M   N   O   P   Q   R

1                      Parts of the Computer

3                                 M
4                        C   O   M   P   U   T   E   R
5                            N                       A               K
6                            I   C   O   N               M   O   U   S   E
7                            T                                       Y
8                    B   R   O   W   S   E   R                       B
9                            R       P                               O
10                                   E                               A
11                                   A                               R
12                                   K                               D
13           H   A   R   D   W   A   R   E
14                                   R
15                                   S
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Crossword | **Crossword with Answers** | Sheet2 | Sheet3