

VLOOKUP Function Purpose (Mac Guide)

Let's say that you have two different Excel documents. Each document has different student achievement or outcomes data. In this example, the first document has DIBELS data. The second document has FAST CBM-R data. You want to combine these two documents but definitely do not want to retype any information because of the time it will take and possible errors that may arise. VLOOKUP is your answer if both documents have a reliable common data element, such as students' state identification numbers, across both Excel documents.

In the example below, Mrs. Disney has this exact situation and she is going to solve this issue by transferring the FAST CBM-R data into the primary Excel document, where the DIBELS is already located. VLOOKUP can be used with any type of data that you want included in the primary Excel document as long as there is a reliable common data element. The issue is getting multiple sources of student data onto one Excel document.

Mrs. Disney can continually update her primary Excel [convergent data document](#) as additional data elements emerge across the school year. This gives her an updated picture of students' growth/achievement/primary as new data sources are dropped into the primary Excel document. This information also provides teachers a picture of how their students are progressing and helps them evaluate their effectiveness. This Excel document can be used in PLCs, Data Teams, BASE teams and the like, to help focus the conversation around student learning and teacher effectiveness. Follow the steps below.

VLOOKUP Function in Excel:

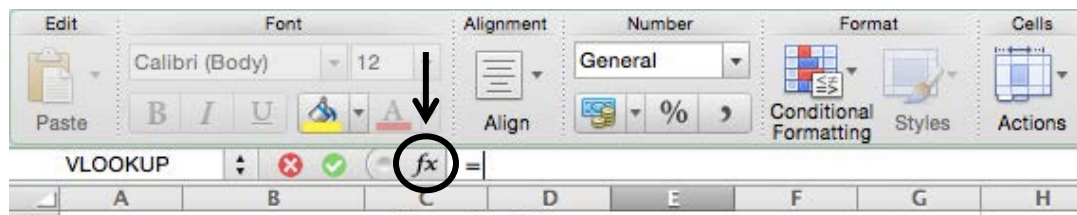
- Create or open the Excel workbooks that contain the different information you want. We will call the Excel workbook where you want to put the data (from secondary Excel workbooks) the Primary file.
- ❖ Secondary Excel workbooks---limit your information to state student ID numbers and student scores only

- Within your Primary file, click on one cell where you want to put the data from the secondary Excel workbook.

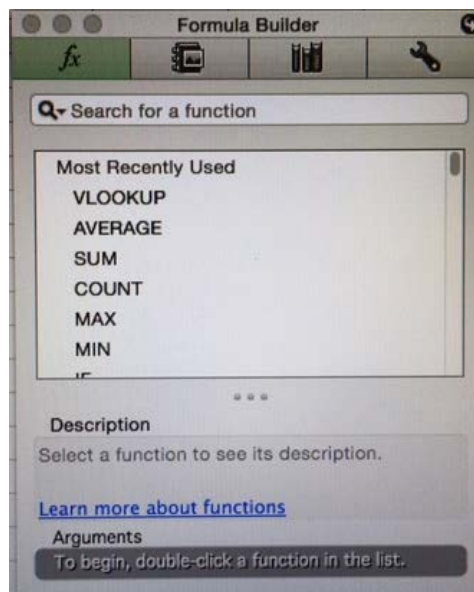
	A	B	C	D	E
1	Disney World Elementary				
2					
3					
4	Teacher	Student Name	Student ID	DIBELS	FAST CBM-R
5	Mr. Disney	Donald Duck	109873	89	
6	Mr. Disney	Betty Boop	109645	83	
7	Mr. Disney	Bugs Bunny	109877	90	
8	Mr. Disney	Elmer Fudge	109632	35	
9	Mr. Disney	Peter Pan	109084	110	
10	Mr. Disney	Captain Hook	109326	60	
11	Mr. Disney	Christopher Robin	109499	112	
12	Mr. Disney	Chicken Little	109763	103	
13	Mr. Disney	Cruella de Vil	109258	116	
14	Mr. Disney	John Smith	109113	58	
15	Mr. Disney	Jessica Rabbit	109486	95	
16	Mr. Disney	Robin Hood	109913	68	
17	Mr. Disney	Mickey Mouse	109223	78	

Primary file cell

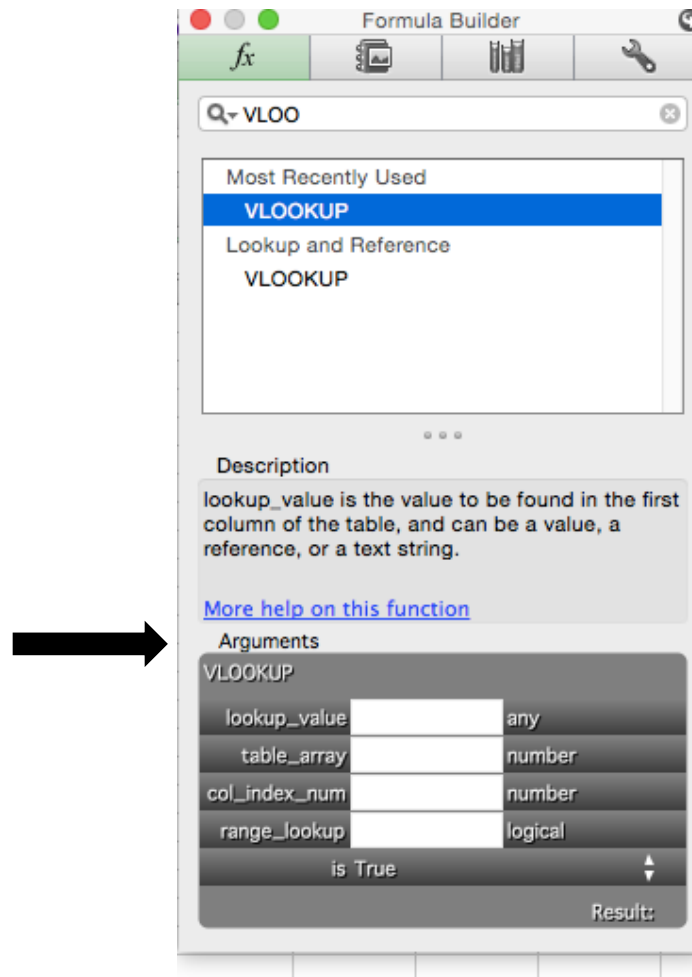
- Click the “fx” button.



This will open a “Formula Builder” box.



- Within the “Search for a function” section type “VLOOKUP”
- Double click on “VLOOKUP” – this will open an “Arguments” section within the “Formula Builder” box



- Select the cell (in the same row as your Primary file cell) that contains your identifier. The identifier is the phrase or number that is unique and is located in both the Primary file and the secondary Excel workbook. Example identifier: State student ID number.

Once you select the cell, it will appear in the “lookup_value” text box.

The image shows a screenshot of an Excel spreadsheet titled "Disney World Elementary" and the "Formula Builder" window. The spreadsheet has three columns: "Student ID", "DIBELS", and "FAST CBM-R". The first row of data has the values 109873, 89, and 109873. The cell containing 109873 in the "Student ID" column is selected, and the formula bar shows the formula =VLOOKUP(C5). The Formula Builder window is open, showing the VLOOKUP function arguments: lookup_value (C5), table_array, col_index_num, and range_lookup. The description of the VLOOKUP function is also visible.

Student ID	DIBELS	FAST CBM-R
109873	89	109873
109645	83	
109877	90	
109632	35	
109084	110	
109326	60	
109499	112	
109763	103	
109258	116	
109113	58	
109486	95	
109913	68	
109223	78	

- Click on the text box labeled “table_array.” Now pull up the secondary Excel workbook.

fx [Icons]

Search for a function

Most Recently Used

- VLOOKUP
- SUM
- AVERAGE
- COUNT
- MAX
- MIN
- IF

...

Description

Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table

[More help on this function](#)

Arguments

VLOOKUP		
lookup_value	C5	109873
table_array		number
col_index_num		number
range_lookup		logical
is True		
Result:		

- **For this step to work you must work from only one screen** --- If you are using two screens (i.e., a monitor and your laptop), make sure both the Primary file and secondary file appear on the same screen. Highlight the columns and rows of data that contain your identifier and the data you want to put into the Primary file. The column containing the identifiers MUST be the first column you begin highlighting, and then highlight towards the right. In other words, make sure that in the highlighted table, the first column on the left contains your identifiers.

The highlighted data will automatically appear in the “table_array” text box.

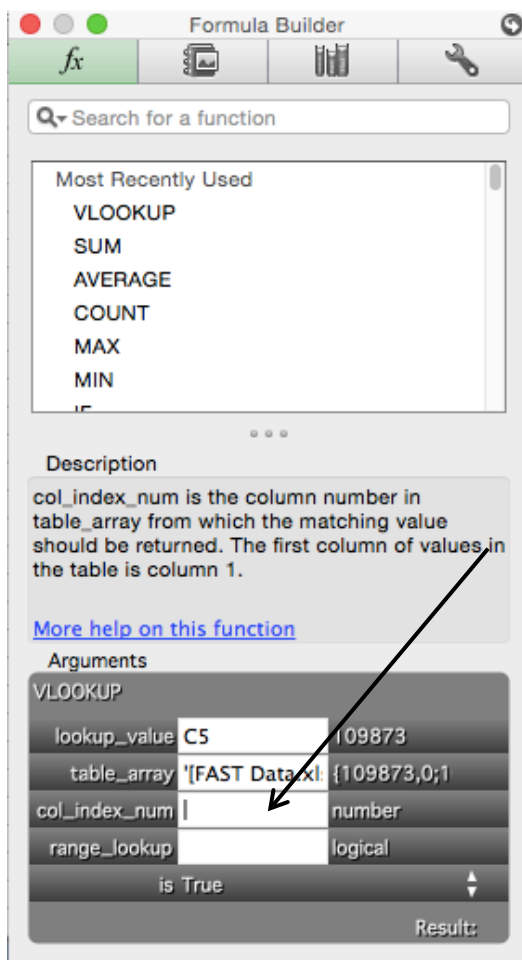
The screenshot shows an Excel spreadsheet with a table of data and the Formula Builder pane open. The table has the following data:

	Student ID	CBM-R Fall Overall Median Words Correct Per Minute
4		
5	109873	
6	109645	78
7	109877	92
8	109632	31
9	109084	104
10	109326	
11	109499	114
12	109763	100
13	109258	114
14	109113	54
15	109486	96
16	109913	66
17	109223	75

The Formula Builder pane shows the following arguments for the VLOOKUP function:

- lookup_value: C5 (109873)
- table_array: '[FAST Data.xl] (109873,0;1
- col_index_num: number
- range_lookup: logical
- is True

- Click on the text box labeled “col_index_num.”



- Go to the secondary Excel workbook. Begin counting the column with your identifier and continue counting until you come to the column containing the data you want to put into the primary file.

Type in the number of columns you counted into the text box.

	A	B
		CBM-R Fall Overall Median Words Correct Per Minute
4	Student ID	
5	109873	
6	109645	78
7	109877	92
8	109632	31
9	109084	104
10	109326	
11	109499	114
12	109763	100
13	109258	114
14	109113	54
15	109486	96

1 **2**

Formula Builder

Search for a function

Most Recently Used

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- SUM
- COUNT
- MAX
- MIN
- IF

Description

col_index_num is the column number in table_array from which the matching value should be returned. The first column of values in the table is column 1.

More help on this function

Arguments

VLOOKUP

lookup_value	C5	0
table_array	'[FAST_data.xlsx]'	Invalid
col_index_num	2	2
range_lookup		logical

is True

Result:

- Click on the “range_lookup” text box. There are two options to type in, “True” or “False.” “True” tells Excel you do not need an exact match to your identifier. “False” tells Excel that you only want data that is associated with an exact match to the identifier. Most of the time, “False” is the option you will go with.

The screenshot shows the 'Formula Builder' window for the VLOOKUP function. It includes a search bar, a list of 'Most Recently Used' functions, a description of the 'range_lookup' argument, and an 'Arguments' section. The 'Arguments' section is a table with the following data:

VLOOKUP		
lookup_value	C5	109873
table_array	{FAST Data.xl	{109873,0;1
col_index_num	2	2
range_lookup	False	FALSE
is True		
Result: 0		


A black arrow points to the 'False' value in the 'range_lookup' row of the 'Arguments' table.

- Hit “Enter” on your keyboard and the data you wanted from the secondary Excel workbook should appear in the Primary file cell you originally selected.

Disney World Elementary				
Teacher	Student Name	Student ID	DIBELS	FAST CBM-R
Mr. Disney	Donald Duck	109873	89	0
Mr. Disney	Betty Boop	109645	83	
Mr. Disney	Bugs Bunny	109877	90	
Mr. Disney	Elmer Fudge	109632	35	
Mr. Disney	Peter Pan	109084	110	
Mr. Disney	Captain Hook	109326	60	
Mr. Disney	Christopher Robin	109499	112	
Mr. Disney	Chicken Little	109763	103	
Mr. Disney	Cruella de Vil	109258	116	
Mr. Disney	John Smith	109113	58	
Mr. Disney	Jessica Rabbit	109486	95	
Mr. Disney	Robin Hood	109913	68	
Mr. Disney	Mickey Mouse	109223	78	

- If you want to use the VLOOKUP function for the whole column, you can click on the first cell with the function and hold your mouse over the bottom right corner. When the mouse turns into a small black plus sign, click down and drag all the way to the bottom of the column.

Disney World Elementary				
Teacher	Student Name	Student ID	DIBELS	FAST CBM-R
Mr. Disney	Donald Duck	109873	89	0
Mr. Disney	Betty Boop	109645	83	
Mr. Disney	Bugs Bunny	109877	90	
Mr. Disney	Elmer Fudge	109632	35	
Mr. Disney	Peter Pan	109084	110	
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Mr. Disney	Robin Hood	109913	68	
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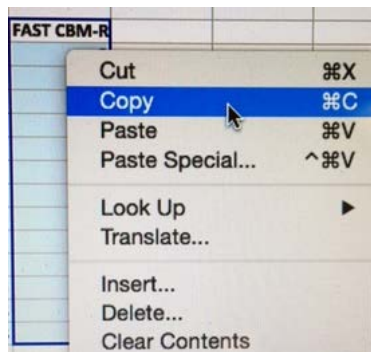


The function's formula should be copied to each cell in the column and the correct data should appear if it was located in the same secondary Excel workbook as the beginning cell.

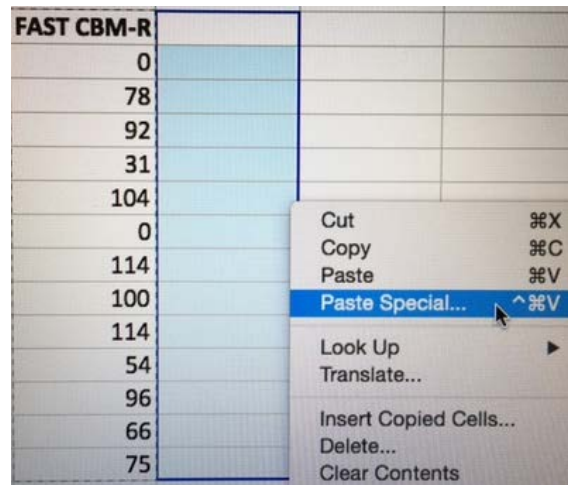
Disney World Elementary				
Teacher	Student Name	Student ID	DIBELS	FAST CBM-R
Mr. Disney	Donald Duck	109873	89	0
Mr. Disney	Betty Boop	109645	83	78
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Mr. Disney	Elmer Fudge	109632	35	31
Mr. Disney	Peter Pan	109084	110	104
Mr. Disney	Captain Hook	109326	60	0
Mr. Disney	Christopher Robin	109499	112	114
Mr. Disney	Chicken Little	109763	103	100
Mr. Disney	Cruella de Vil	109258	116	114
Mr. Disney	John Smith	109113	58	54
Mr. Disney	Jessica Rabbit	109486	95	96
Mr. Disney	Robin Hood	109913	68	66
Mr. Disney	Mickey Mouse	109223	78	75

We recommend that you save the information you pulled with VLOOKUP as value data, so that it is no longer attached to the VLOOKUP formula.

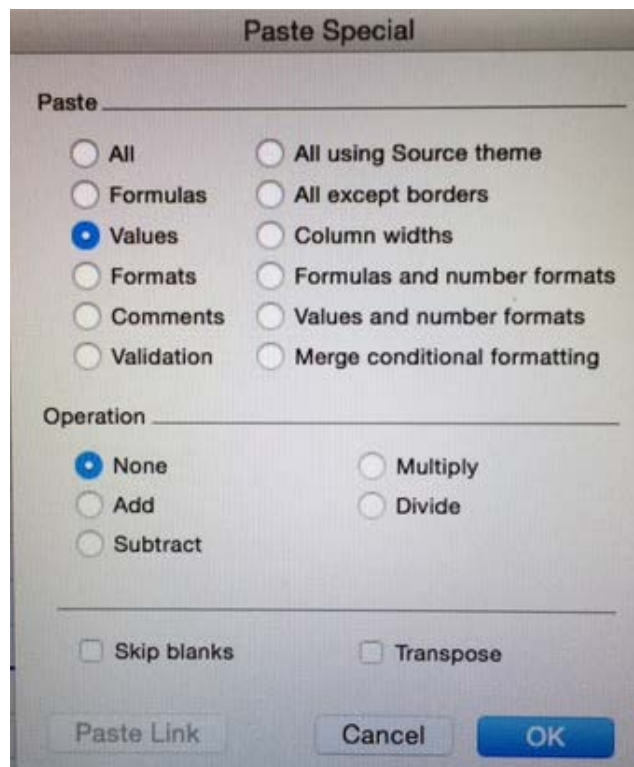
- Highlight the cells that contain your VLOOKUP information by clicking on the first cell (FAST CBM-R heading) and dragging down; right click and then select "Copy."



- Highlight the cells to the right of your FAST CBM-R column, right click and select “Paste Special.”



- Within the “Paste Special” window, under “Paste,” select the “Values” option and then click “Ok.”

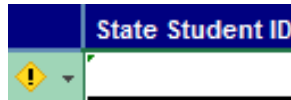


Make sure everything transferred correctly, if so, you can delete the column that contains the VLOOKUP formulas.

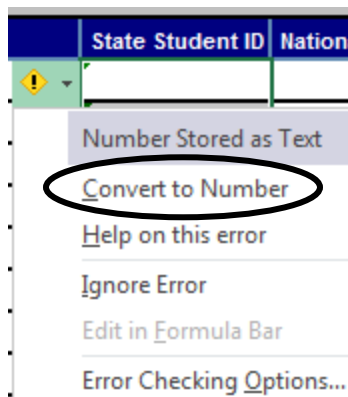
Common Issues with VLOOKUP

Number stored as text (#N/A error)

When you pull a report from EdInsight, check the “State Student ID” cells for small green triangles in the upper left corners and corresponding exclamation marks/error messages:




The “State Student ID” information tends to pull as text instead of number data, which causes an error with the VLOOKUP formula. To fix this issue, highlight all of the cells containing “State Student ID” numbers. Hover your mouse over the exclamation mark/error message and click on the “Convert to Number” option:



No information available (#N/A error)

If you have a student in your Primary Excel file who is not included within your secondary workbook (Ex: student recently moved to the area – no scores available), VLOOKUP will return a #N/A result:

	D	E	F
Student ID	7th Grade Math: National Percentile Rank	8th Grade Math: National Percentile Rank	9th Grade Math: National Percentile Rank
7	58	74	72
2	#N/A	#N/A	96
3	41	36	52

NOTE: To obtain details about an error – hover your mouse over the exclamation mark/error icon  to obtain the pop up window explanation.

Receiving same result all the way down the column

- Open your Excel document
- File
- Options
- Formulas
- Calculation options
- Select “Automatic”
- Ok
- Save document

If “Manual” is selected on an Excel document, VLOOKUP will not function properly within the spreadsheet