

Lesson VLOOKUP

Overview

VLOOKUP is one of Excel's most useful functions, and it's also one of the least understood. In this lesson plan, I will demonstrate and explain the VLOOKUP function in detail. In its most common usage, VLOOKUP is a database function, meaning that it works with database tables – or more simply, lists of things in an Excel worksheet. Using VLOOKUP is similar to looking up a person's name in a telephone book to get a telephone number. VLOOKUP looks at a value in one column, and finds its corresponding value on the same row in another column.

Objectives

The objective is to equip students with the knowledge of what a VLOOKUP function is and how to successfully complete a VLOOKUP without any errors.

Goals

After completing this course you will be able to:

- Enter VLOOKUP arguments in a formula.
- Use VLOOKUP to find values in Excel lists or tables.
- Avoid VLOOKUP errors.

VLOOKUP real life examples

- Calculating the commission for a sales employee, given the value or quantity of sales they have made (look up the salesperson's name, find their sales, and multiply by the commission rate).
- Deciding which commission rate to pay based on the level of sales (look up the actual sales in a commission table to find the appropriate commission percentage to pay).
- Looking up the price of a given product from a table of product information (look up the product name or part number and return the price for that product)
- Looking up the price of a product for a given sales quantity (look up the number of items being ordered and find the price to be charged for that volume).
- Checking the date an employee started work, given the employee's staff ID number (look up the staff ID number and return their start date).

STEPS

1. Name the range of the information or data you will be having the VLOOKUP referencing from. *Hint: Remember the lookup values in the reference table have to be in increasing order or in alphabetical order for VLOOKUP to work*
2. Go to the cell you want to input the VLOOKUP function in
3. Fill in all necessary information for the VLOOKUP function.

Lookup_value – The given value or information you want the VLOOKUP function to use to obtain the referencing information you want or need.

Table_array – The given table, values, numbers, etc. that the VLOOKUP will be receiving data from.

Col_index_num – The numerical number of the column in your Table_array that you assign the VLOOKUP to look or search through for the matching value.

Range_lookup – Basically a logical value that highlights whether the VLOOKUP should be looking for the exact match and or the closest match of information

The screenshot shows an Excel spreadsheet with a table of student names and their test scores. A VLOOKUP function is being used to find the grade for a given score. The function arguments dialog box is open, showing the following details:

Lookup_value	Table_array	Col_index_num	Range_lookup
G3	Scale	2	TRUE

The dialog box also shows the formula result as 'A' and includes a link to 'Help on this function'.

The spreadsheet data is as follows:

Names	Test 1	Grades
Bob	90	
Nate	87	
Rob	45	
Janet	63	
David	58	
Richard	78	
Michael	97	
Jessica	69	
Jenny	83	
James	73	

The 'Grade Scale' table is located in the range B3:C8:

Grade	Scale
0	F
60	D
70	C
80	B
90	A

Function Arguments

VLOOKUP

Lookup_value

G3

= 90

Table_array

scale

= {"Grade Scale",0;0,"F";60,"D";70,"C";80,"A";90,"A"}

Col_index_num

2

= 2

Range_lookup

true

= TRUE

= "A"

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 must be sorted in an ascending order.

Range_lookup

is a logical value: to find the closest match in the first column (sorted in ascending order) = TRUE or omitted; find an exact match = FALSE.

Formula result = A

[Help on this function](#)

OK

Cancel

4. Press enter and your VLOOKUP function should be complete with no errors.