

VLOOKUP Core Concepts

Spreadsheet functions can be used to quickly find information and perform calculations using specific values. **VLOOKUP**, or Vertical Lookup, is one such function that vertically searches for a certain value in a column and returns the corresponding piece of information. In this reading, you'll examine the intricacies of this extremely useful function so you understand how it works when you use it to analyze data.

VLOOKUP functionality

VLOOKUP searches for a search term, called a `search_key`, in one column of a spreadsheet. When the search is found, the function returns the data from another column of the row from which it was located. **VLOOKUP** only returns the value that corresponds to the first item it matches. So, if there are multiple matching values, the spreadsheet will return only data about the first one.

VLOOKUP use cases

Here are two common reasons why you might use **VLOOKUP**:

- **Populating data in a spreadsheet.** Perhaps a store manager is tracking incoming shipments before a holiday. They could use **VLOOKUP** to look up product ID codes in a product spreadsheet and retrieve the corresponding product information from another spreadsheet. This would help the manager know which stock clerks they need to schedule to work when the shipments arrive.
- **Merging data from one spreadsheet with data in another.** If a teacher keeps one spreadsheet for grades and another for attendance, they could use **VLOOKUP** to combine the spreadsheets. That way, the teacher could search for a particular student in the attendance sheet, and **VLOOKUP** would pull the corresponding attendance record into the grades spreadsheet.

VLOOKUP syntax

VLOOKUP is available in both Microsoft Excel and Google Sheets. Here, you'll explore its syntax in Google Sheets. Refer to the resources at the end of this reading for more information about **VLOOKUP** in Microsoft Excel.

VLOOKUP's syntax is:

```
1 VLOOKUP(search_key, range, index, is_sorted)
```