

Sample Teach – Data Analysis

VLOOKUP || HLOOKUP || INDEX/MATCH

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Objective:	Students will know how to (1) combine data tables and (2) look up specific values, using formulas in Excel. Objective is included in slide 1 of the presentation.
Introduce topic:	Example: two tables, one with countries + population and one with countries + GDP. If you want to know GDP per person, you need to combine these tables – and copy-paste will take a long time. Use formulas!
Explain skill:	PowerPoint presentation uses an ‘abstracted’ Excel table + highlighting to show how the formula components relate to the table.
Practice:	After introducing VLOOKUP, break for the independent activity. Provided Excel spreadsheet has tables of DC Public Pools and Adult Swim class times; students will use formulas to add addresses to the class table.
Debrief:	Ask students – how would you have done that before knowing VLOOKUP? What are some reasons VLOOKUP would be better? What were problems people encountered with doing the practice?
Advanced options:	<p>If time allows, continue with INDEX/MATCH, advanced applications of INDEX/MATCH (looking up both rows and columns), and a discussion of situations where INDEX/MATCH wouldn’t work (multiple criteria, etc.).</p> <ul style="list-style-type: none">• Using the second tab of the exercise spreadsheet. What are two reasons not to use VLOOKUP, and what can we use instead? (INDEX/MATCH)• Quick explanation – INDEX/MATCH lets you specify the “answer” array and “search” array separately, which is convenient. But, it’s a little more complicated to understand because it combines two separate functions.• Long explanation – walk through slides showing how INDEX works, how MATCH works, and final syntax. Slides are included.• When time finishes, wrap up and note the advanced topics available for homework.