



Scenario Based Learning Activity Year 3: Excel

FILTERING & ANALYSING DATA – Pivot Tables

Student Name & Nr:

Introduction

In this activity we'll make use of data filters and a pivot table to analyse roller coaster data. In order for data filters and pivot tables to be most effective, ensure that the spreadsheet data has headings and does not contain any blank rows or blank columns.

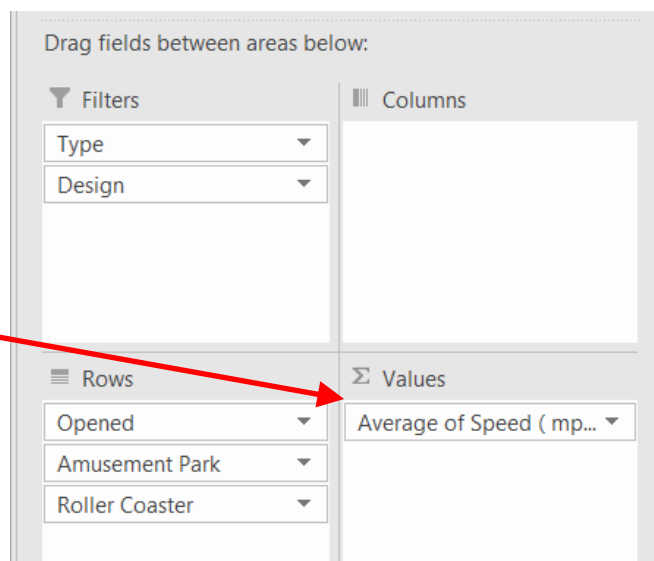
Refer to: Create a PivotTable to analyze worksheet data - Office Support
Overview of PivotTables and PivotCharts – Office Support
Video Create a PivotTable and analyze your data – Office Support
26 Intro to Pivot Tables - GCF Office Tutorials
27 Doing more with Pivot Tables - GCF Office Tutorials

Open the file *Roller Coaster*

Instructions:

1. Enable data filters by clicking on the first row in the spreadsheet containing the headings. Go to the DATA tab and click on FILTER.
2. Convert this data into a pivot table and find the overall average speed of all rides that satisfy the following criteria:
 - The Type is Steel
 - The Design is Sit Down
 - The Amusement Park was opened between 1990 and 2007
 - The Amusement Park has the word *Pleasure* somewhere in the titleSort the data descending by *year opened*.

3. Suggested solution:
 - Drop the *Type* and *Design* fields into *Filters*
 - Drop the *Opened*, *Amusement Park* and *Roller Coaster* fields into *Rows*
 - Drop *Speed* into *Values*
 - Change the *Speed* value to *Average* and format for number with 2 decimals





- 4. Filter for Type:= Steel
Filter for Design:= Sit Down

	A	B	C
1	Type	Steel	
2	Design	Sit Down	
3			
4	Row Labels	Average of Speed (mph)	
5	1979		45.00
6	Pleasure Beach, Blackpool		45.00
7	Irn-Bru Revolution		45.00
8	1980		40.00
9	Alton Towers		40.00
10	Corkscrew		40.00

- 5. Filter Opened:= between 1990 and 2007

The screenshot shows the Excel interface with the 'Opened' filter menu open. The menu includes options for sorting and filtering. The 'Between...' option is highlighted with a red arrow. The table data from the previous image is visible in the background.

	A	B	C
1	Type	Steel	
2	Design	Sit Down	
3			
4	Row Labels	Average of Speed (mph)	
5	1979		45.00
6	Pleasure Beach, Blackpool		45.00
7	Irn-Bru Revolution		45.00
8	1980		40.00
9	Alton Towers		40.00
10	Corkscrew		40.00



6. Filter Amusement Park:= contains "pleasure"

The screenshot shows the Excel 'Filter' dropdown menu for the 'Amusement Park' field. The menu is open, showing options for sorting and filtering. The 'Contains...' option is highlighted, indicating the filter is being applied to rows where the Amusement Park name contains the word 'pleasure'. Red arrows point to the dropdown arrow, the search box, and the 'Contains...' option.

7. Sort descending by year opened:
= largest to smallest (Z-A)

	A	B
1	Type	Steel
2	Design	Sit Down
3		
4	Row Labels	Average of Speed (mph)
5	2007	47.00
6	Pleasurewood Hills	47.00
7	Wipeout	47.00
8	1995	34.00
9	Pleasurewood Hills	34.00
10	Enigma	34.00
11	1993	47.00
12	Pleasure Island Family Theme Park	47.00
13	Boomerang	47.00
14	Grand Total	42.67

9. Save the file by adding your own name in the following format:
Smith John Roller Coaster