



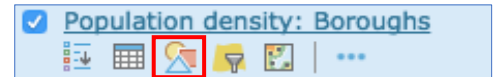
These instructions will show you how to:

- style data
- filter data

Firstly, you will need to access [this map showing population density in London](#). You will need to "Save as..." giving the map a name.

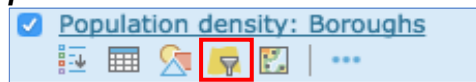
Note that you have two layers of population density information for Boroughs and LSOAs (Lower Super Output Areas).  . These can be switched on or off.

1) Working with the 'Boroughs' layer, click the 'Change Style' menu



2) Under **Choose an attribute to show**, select '**Pop_den**' for population density (people per km²). A colour scheme will be chosen by default, but you can alter this by going to **Options** under **Counts and Amounts (colour)**. A wide range of colour ramps is available under **Symbols**. **Remember to save your map**

3) Now using the **Filter** tool, which appears:



select from the dialogue box

Name	contains	Chelsea
FID		<input checked="" type="radio"/> Value <input type="radio"/> Field <input type="radio"/>
Name		
Pop_den		

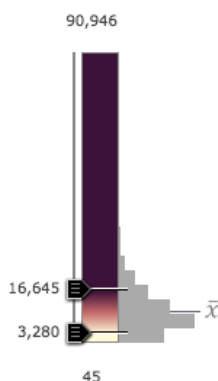
You can make your own choice or multiple choices – use '**Add another expression.**' So, you can show boroughs with a 'w' in their name (**contains**) or two or more boroughs, depending on your selections.

Save your map

4) Hide the '**Boroughs**' layer, and make sure that the **LSOA** layer is visible. LSOAs average about 1600 people, so there are many in London. As in (1) and (2) above, style this data layer, using '**Pop_den.**' **Save your map**

You can filter by name – so you could show all the LSOAs in Haringey, for example.

You are now going to find the most and least densely populated LSOAs in London. When you style your map, the window has this on the left-hand side:



This provides useful information about the **range of values** for Pop_den: 45 to 90,946 people km². This information can be useful for filtering.

5) To show the lowest and highest density LSOAs in London, click the filter icon (3, above) and enter the following values:

Display features in the layer that match of the following expressions

Pop_den	is less than	500	✗
		<input checked="" type="radio"/> Value <input type="radio"/> Field <input type="radio"/> Unique	
<input type="checkbox"/> Ask for values ▼			
Pop_den	is greater than	50000	✗
		<input checked="" type="radio"/> Value <input type="radio"/> Field <input type="radio"/> Unique	
<input type="checkbox"/> Ask for values ▼			

You may need to play around with the numbers – you can edit the filter details to show LSOAs which fall within a range or above or below a certain value.

This shows that population density tends to be higher nearer to the centre of the city, but that low densities occur in London where there are parks or offices. There are many possibilities for querying the data – e.g. which borough has the greatest variation in LSOA population density?