

ArcGIS provides users with a variety of ways to display their data. Students should remember that choices made in the data presentation stage should represent decisions that enhance the understanding of the geography, rather than ones made to make the data presentation more attractive.

Data that is being uploaded to ArcGIS needs to be both spatial (with latitude and longitude records) as well as categorical (with each of the values that will be placed in the individual pie charts - Figure 1). In this example, the student is going to chart data from a litter survey.

	A	B	C	D	E	F	G	H
1	Latitude	Longitude	Plastic	Metal	Textile	Organic	Other	
2	50.65293	-1.15539	45	25	5	10	15	
3	50.65376	-1.15395	42	20	1	15	22	
4	50.65463	-1.15215	58	18	2	12	10	
5	50.65565	-1.14989	64	29	0	0	7	
6	50.65734	-1.1462	72	9	9	3	7	
7	50.65874	-1.14301	60	10	5	10	15	
8								
9								
10								

Figure 1

Once numerical data has been uploaded to ArcGIS (see [the island geographer guide 25](#)) it will usually automatically be displayed as a series of location markers (i.e. with no data visible - Figure 2).

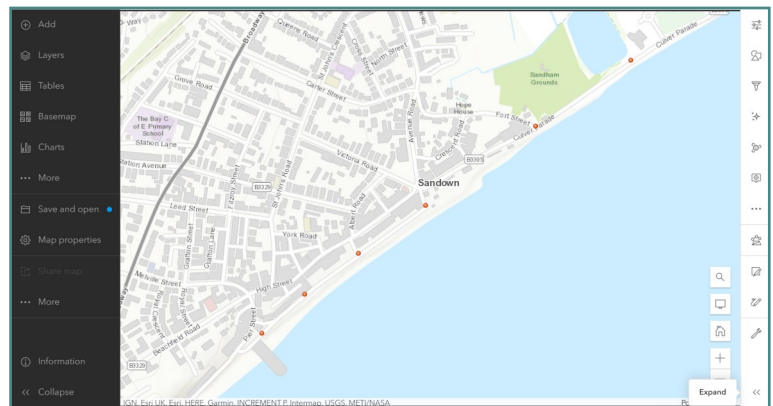


Figure 2

From the menu of symbols on the right hand side of the map, select 'Styles' (Figure 3).

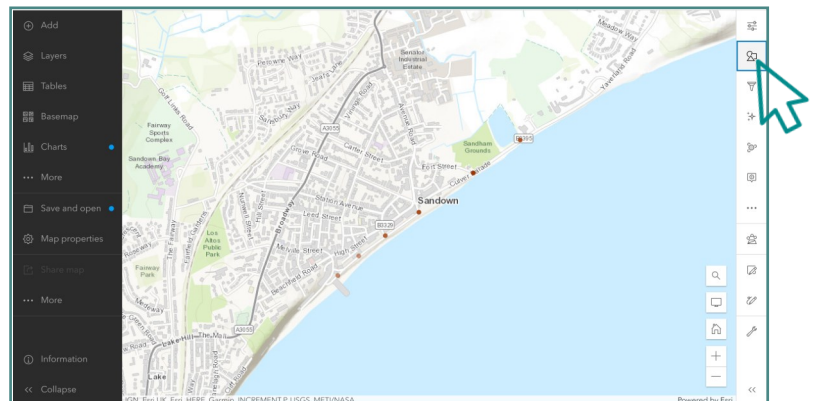


Figure 3

Under 'Choose attributes', select '+Field' (Figure 4).

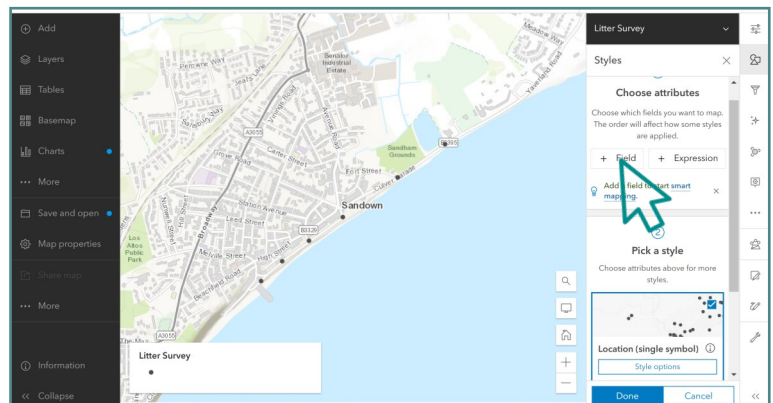
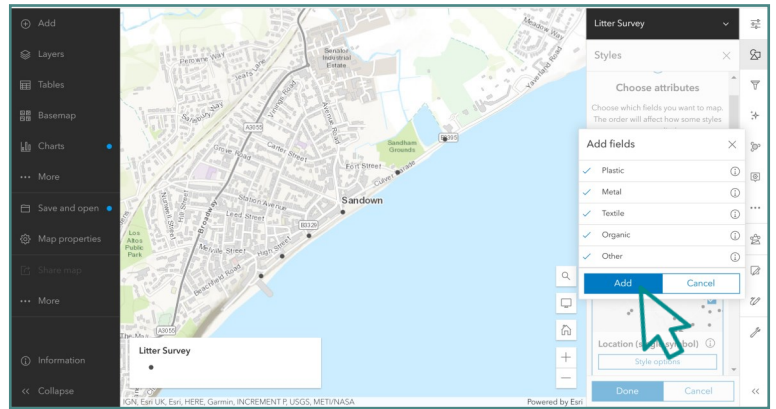


Figure 4

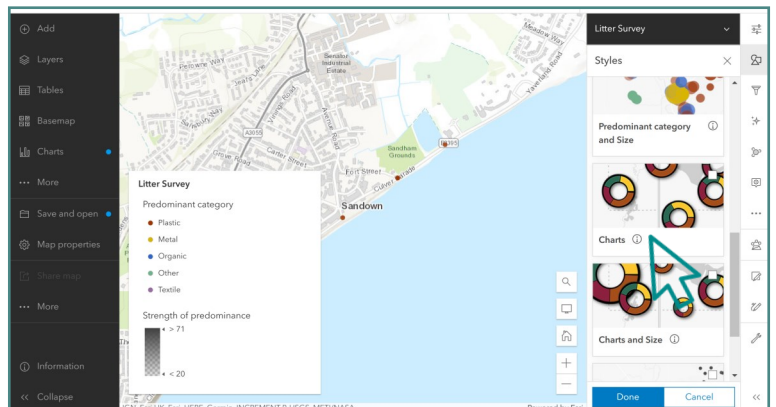
Tick all fields that you wish to include in the pie charts and select 'Add' (Figure 5).

Figure 5



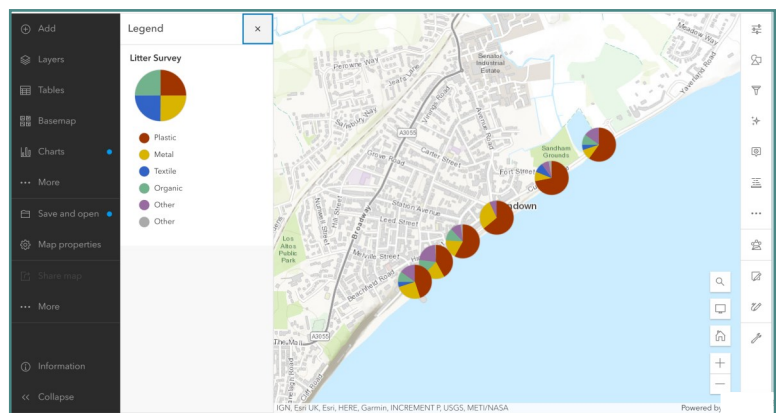
Use the slider to scroll down to 'Charts'. Select 'Charts' and click 'Done' (Figure 6).

Figure 6



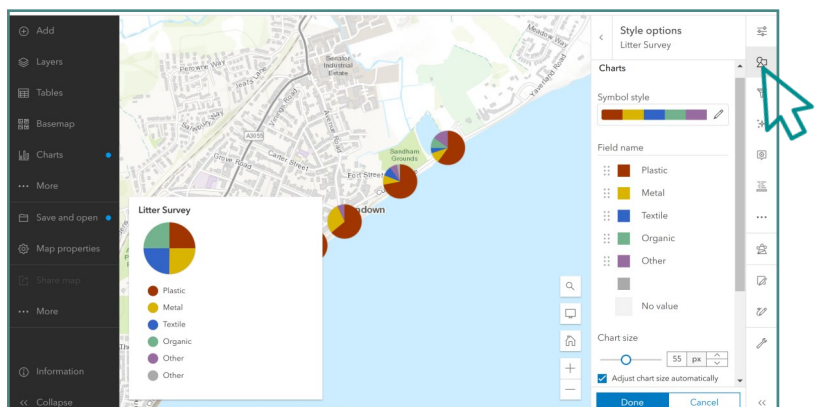
Pie charts will now be displayed on your map layer in the place of the location marker (Figure 7).

Figure 7



To change the appearance of the charts, (such as to make them bigger or to have different colour schemes) select 'Style options' where you can personalise them (Figure 8).

Figure 8



In the above example, the pie chart is displayed as a standard size with the size of each 'slice' of the pie shown as a percentage of the total number of individuals.

A further option is to make the pie charts' overall size proportional to the total amount of individuals (i.e. make the pies appear as they would in a proportional shape map).

To do this, instead of choosing 'Charts', select 'Charts and Size' and 'Done' (Figure 9).

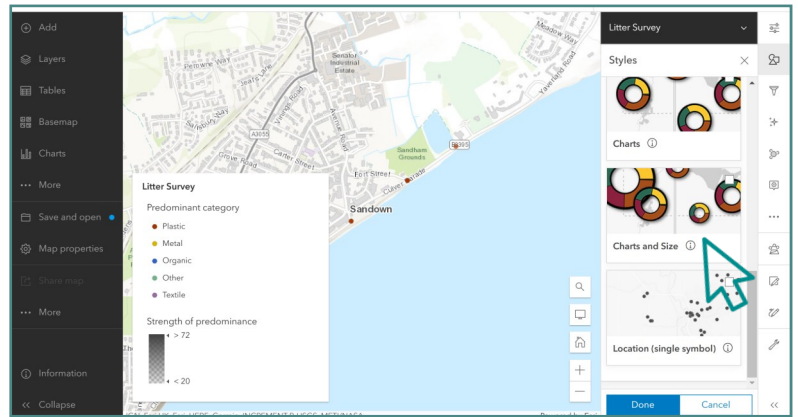


Figure 9

The pie charts will automatically display as proportional shapes (Figure 10).

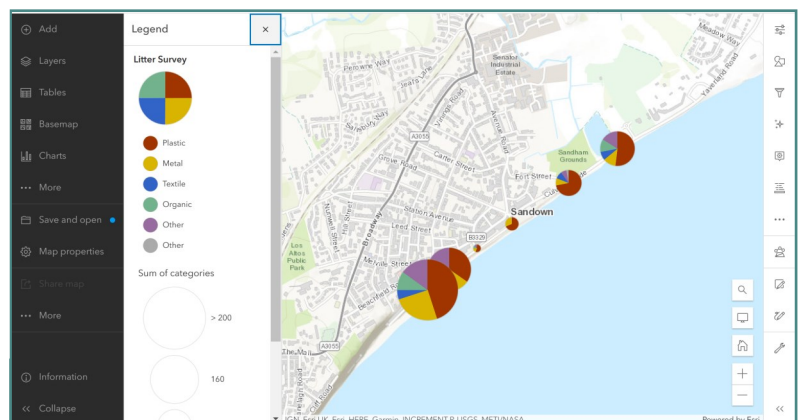


Figure 10