

Data visualisation – free and low cost tools



www.superhighways.org.uk



about Superhighways....

Providing tech support to the sector for 20 years

- ✓ Support
 - ✓ Training
 - ✓ Consultancy
 - ✓ Digital inclusion
-
- ✓ E-news sign up

<https://superhighways.org.uk/e-news/>



HELLO

MY NAME IS

Your Name



In this session we will...

- ✓ Identify free and low cost digital data visualisation tools
- ✓ Choose the right visuals – useful design tips
- ✓ Create infographics using free online tools
- ✓ Introduce and test a range of free geo mapping tools
- ✓ Download your creations for use in reports, on websites & more



What is data visualisation?

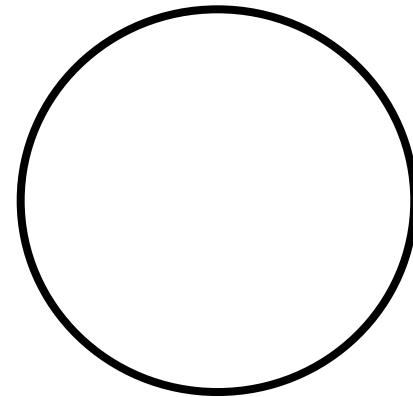


Quick task: image versus text

Textual description

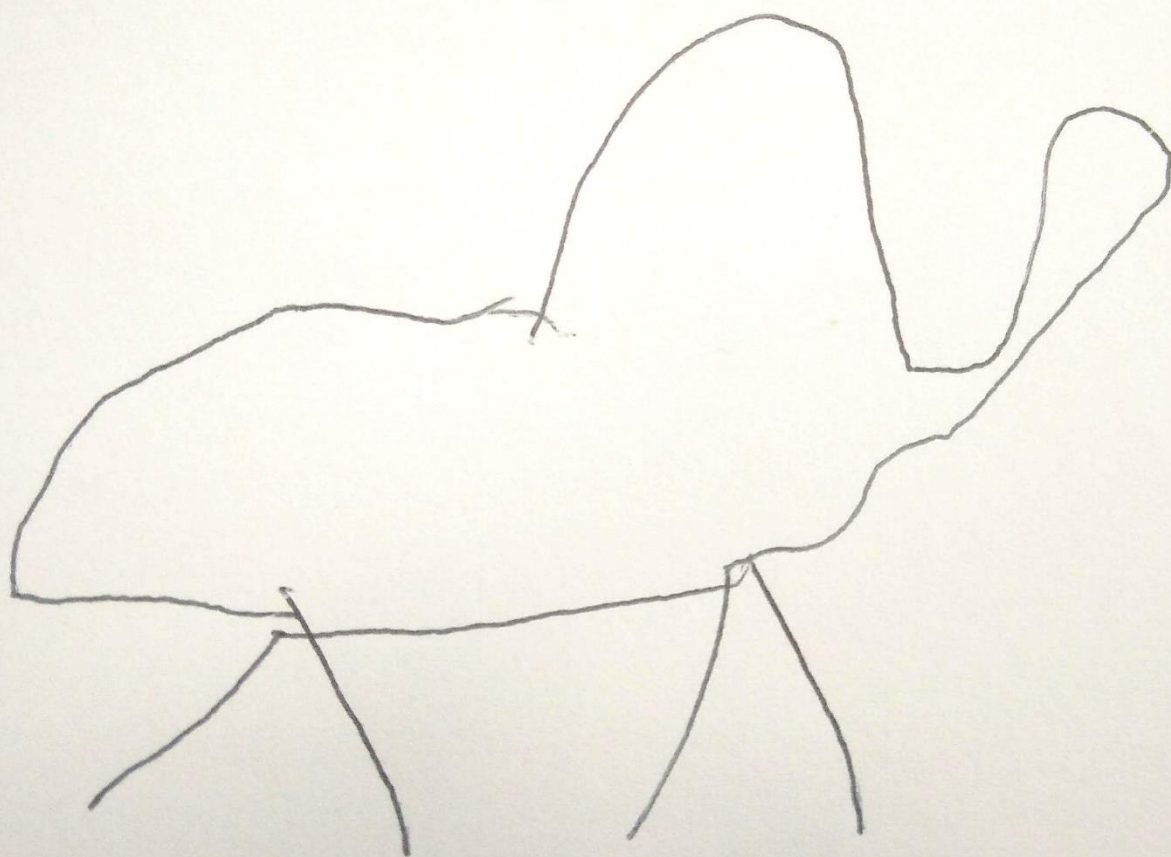
A curved line with
every point equal
distance from the
centre

Graphic description



Quick task: close your eyes & draw a camel!





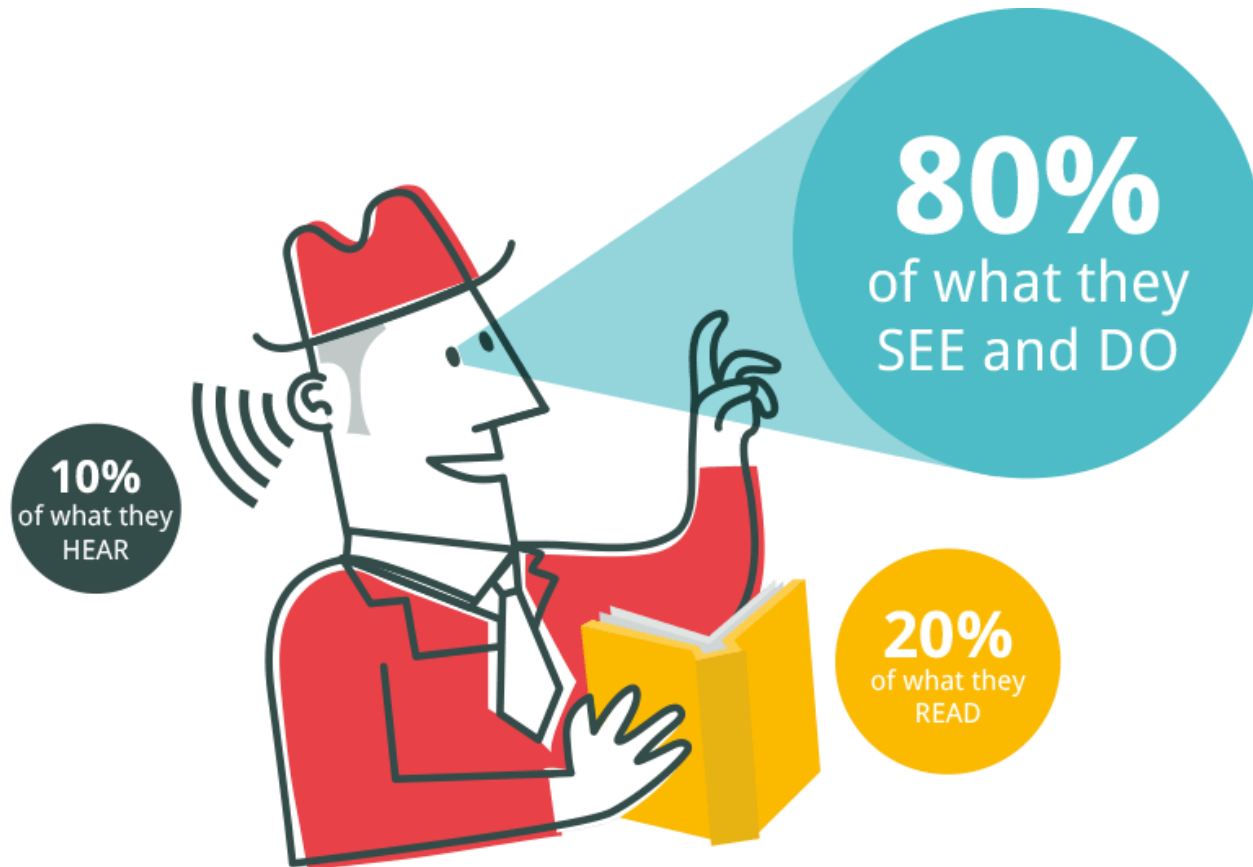
3484787458756358898
9274599002294599092
0994929594903909049
7373978783785873787
8274647384920945892
8848980029097365388
288920678930



34847874**5**87763889892
74**5**99002294**5**99092099
49290949039090497973
978783788737878**5**2746
4**5**384920944892884898
00290973388 ♂



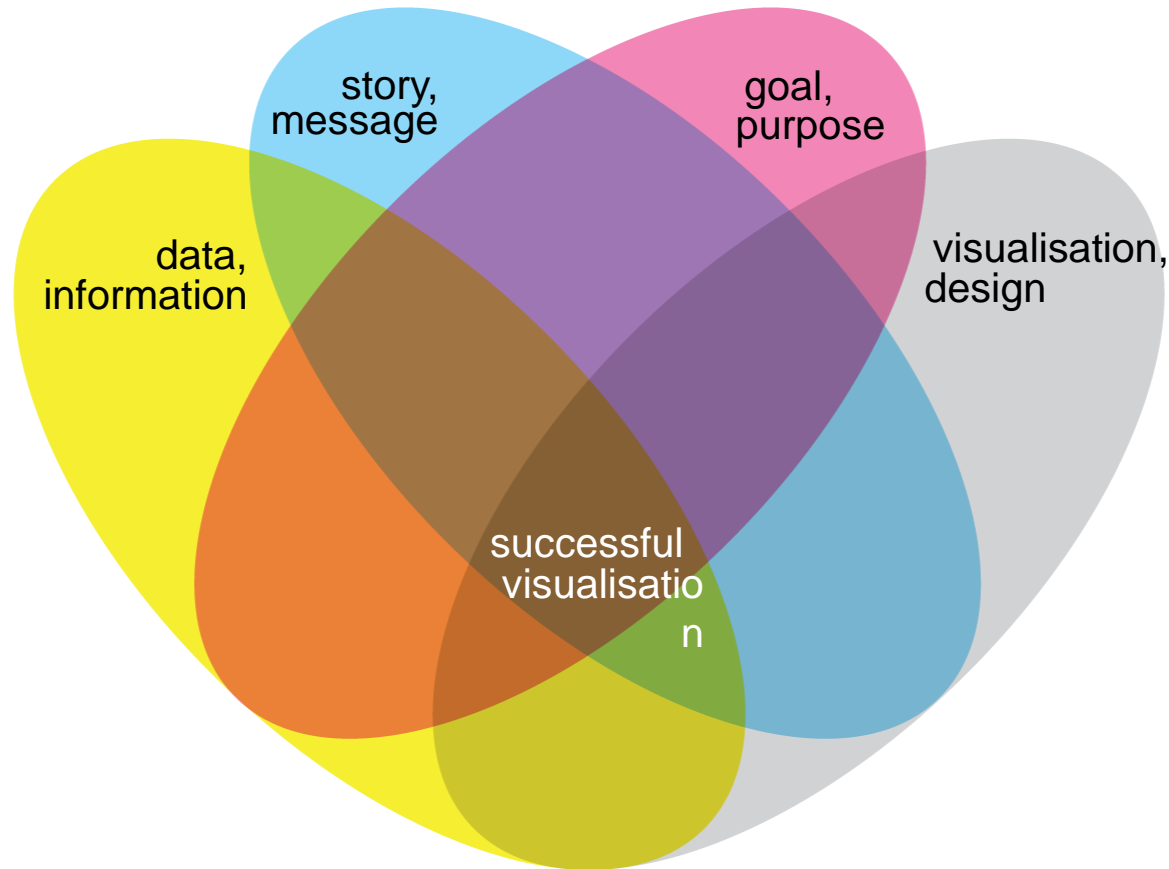
Why infographics?



<http://neomam.com/interactive/13reasons/>



What Makes a Good Visualisation?



Some cool David McCandless examples

- [Mountains out of Molehills](#)
- [Snake oil supplements](#)
- [Colours in culture](#)
- [The Billion Dollar-o-Gram](#)
- [A Matter of Fact – What the Health!](#)
- [Brexit explained \(!\)](#)

More at <https://informationisbeautiful.net/visualizations/>

And some refugee / migrant themed ones in our [elink list](#)

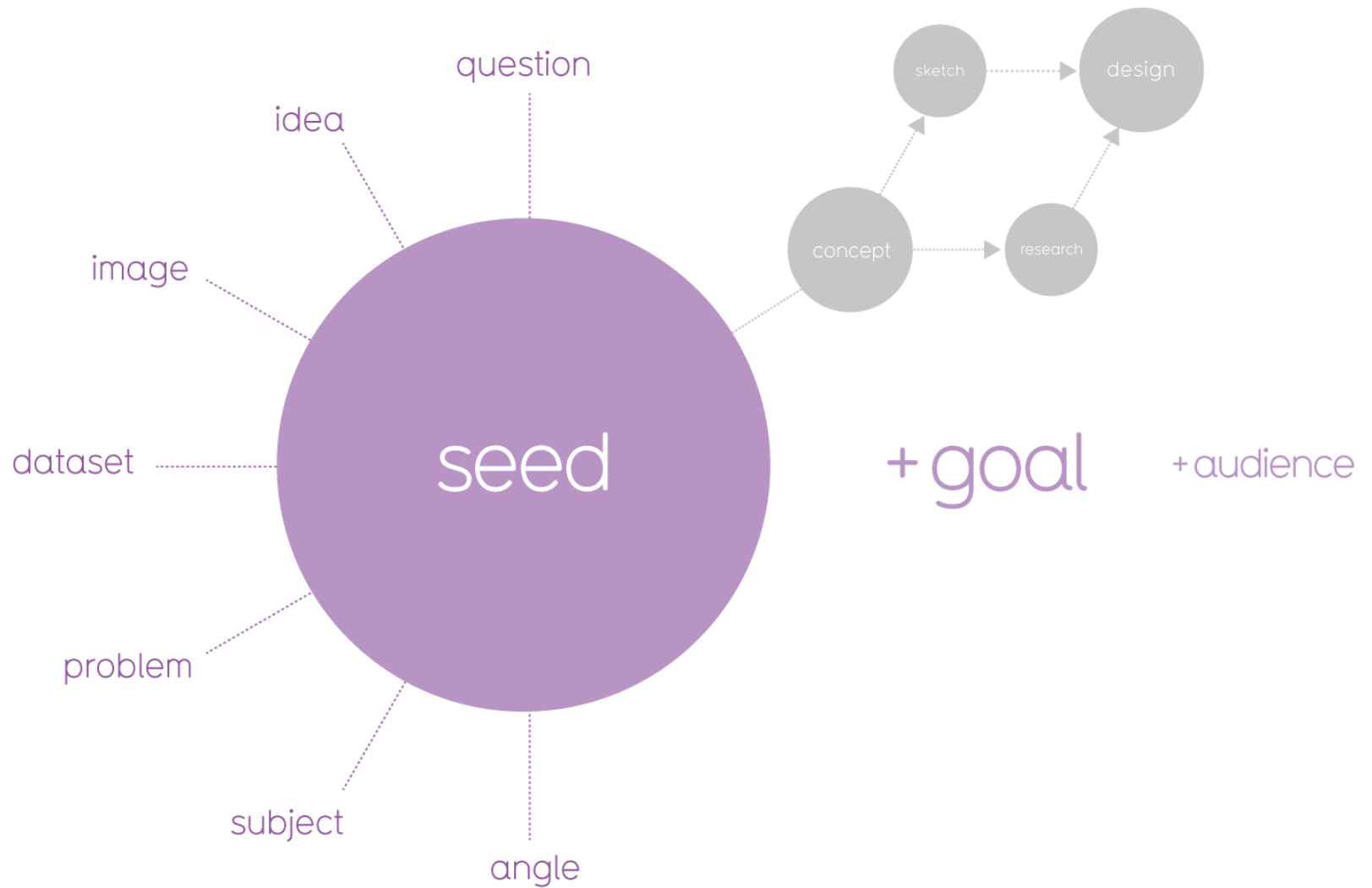


In pairs...

**Brainstorm 10 visualisation
ideas**

(fun / not work related!)



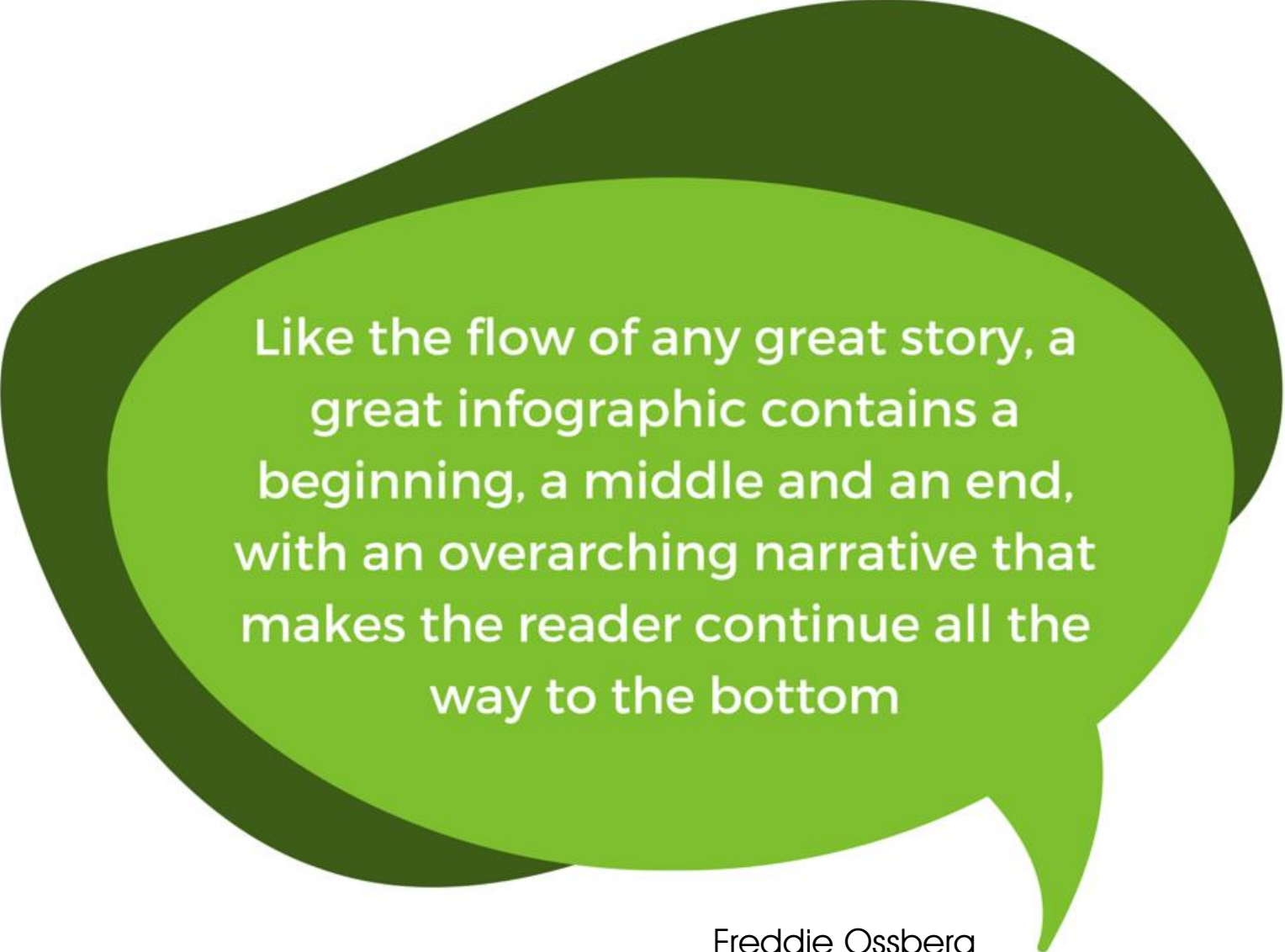


Source: David McCandless, Information is Beautiful

Let's think of some work related goals...

Enter up to 3 visualisation GOALS for your organisation





Like the flow of any great story, a
great infographic contains a
beginning, a middle and an end,
with an overarching narrative that
makes the reader continue all the
way to the bottom

Freddie Ossberg
Raconteur Media's founder and CEO



Infographics for impact – reports



Piktochart
easelly

infogr.am

VENNGAGE

Canva



Infographics for impact – websites



663^M

663 million people live without clean water.

2.4^B

2.4 billion people don't have access to adequate sanitation, one in three of the world's population.

289k

289,000 children under 5 die each year due to diarrhoeal diseases caused by poor water and sanitation. That's 800 a day, or 1 child every 2 minutes.



Infographics for impact – social media



Macmillan Cancer @macmillancancer · Jun 16

Up to 70% of carers experience one or more issues with their emotional wellbeing or mental health. Find support at macmillan.org.uk/getsupport



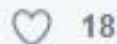
of cancer
carers
experience
stress



of cancer
carers
experience
anxiety



of cancer
carers
experience
depression



Getting started with Canva

Browse by Category



Getting Started



Fonts



Color



Images



Backgrounds



Layout



Branding



Skills in Action

Follow the Welcome tutorial
Or see our [Canva Quick Guide](#)



Activity 1: Create a quote with Canva

Turn the following quote into an image to share on social media

“When the whole world is silent,
even one voice becomes powerful”


Malala Yousafzai

1. Create a design – Social Media
2. Choose a Quote Social Graphic template
3. Change the text
4. Choose a new font type and colours



Social Media





**WHEN THE
WHOLE WORLD
IS SILENT, EVEN
ONE VOICE
BECOMES
POWERFUL.**

MALALA YOUSAFZAI



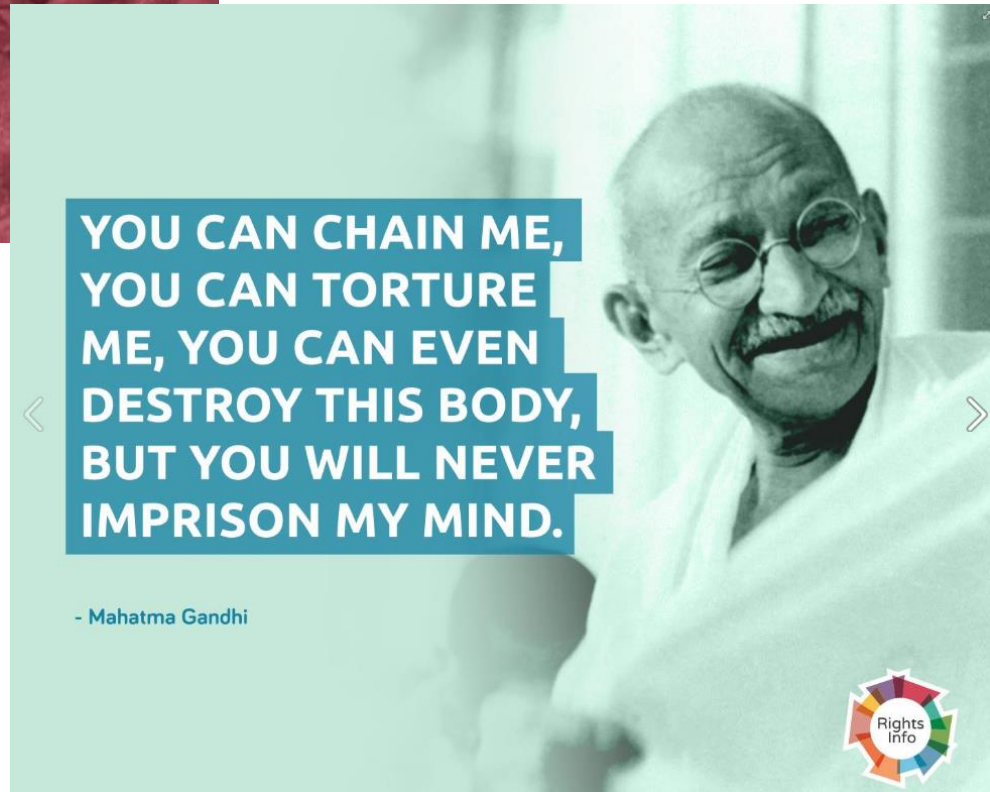
When the whole
world is silent, even
one voice becomes
powerful

- Malala Yousafzai



YOU CAN CHAIN ME,
YOU CAN TORTURE
ME, YOU CAN EVEN
DESTROY THIS BODY,
BUT YOU WILL NEVER
IMPRISON MY MIND.

- Mahatma Gandhi



Activity 2: A more advanced Canva task



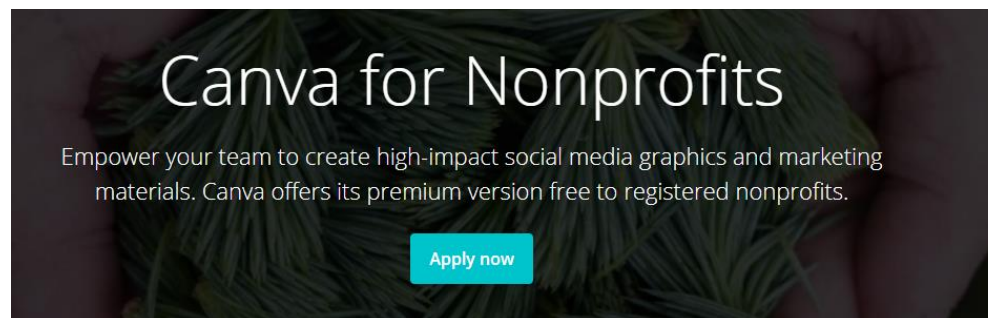
Recreate this simple fact from the UN Global Compact for Migration.

It won't be exactly the same! But try and use the same dimensions / similar icons and colours.



Why use Canva?

- ✓ Create social media posts, documents, reports, presentations and more
- ✓ Free starter account
- ✓ Lots of simple charts, icons, photos & ability to upload your own images
- ✓ Registered charities can apply for an enhanced donated programme
- ✓ Easy to use – beginner to intermediate skills



Why use PiktoChart?

- ✓ Create reports, infographics and documents
- ✓ Free users can create up to a limit of 5 visuals
- ✓ Charts, icons, photos and *maps*
- ✓ Embed videos
- ✓ Link to live data (Google spreadsheets)
- ✓ Registered charities get a significant discount
- ✓ Intermediate skills to use

Individual PRO

USD
39^{.99}
per year

Create unlimited visuals

1GB image uploads

HD image exports

PDF exports

Watermark removal

Password protection for published visuals

Custom color schemes & personal colors

Custom fonts upload

Folders

GET IT NOW





85 clients supported

Anxiety
Depression
Bereavement
Relationship breakdown
Stress

Presenting issues



20 Counsellors

We are the only counselling service in Croydon providing communities with long term counselling and fees based on the ability to pay



50%

referrals from GPs, mental health services & local charities



16

days waiting time for assessment



65%

receive counselling for over 6 months



12

clients receiving a counselling bursary

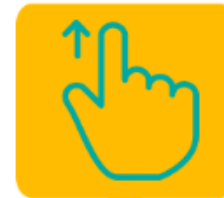
Our achievements



1344 hours of counselling provision



reaching our diverse local community



60% felt mental health has improved



Highlights 2017 - 2018

1216 clients



570 main clients

204 partners



442 children



45% female

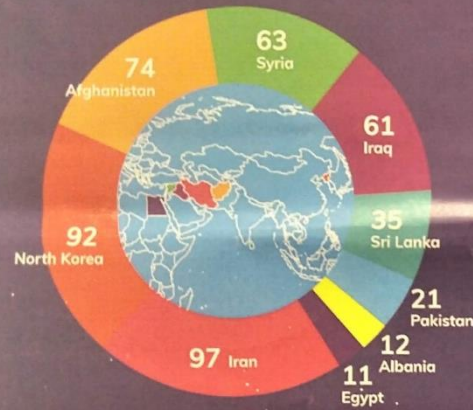


55% male

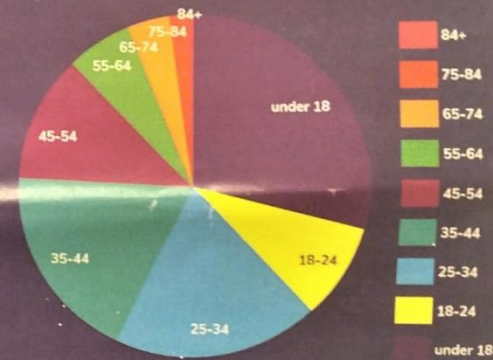


77 volunteers

Most common countries of origin



Clients by age



77

improved health outcomes



42

supported to improve mental health

75% reduced loneliness and isolation

11 secured employment



93% improved English skills

82



improved housing situation

85%

improved knowledge of local services



86% rated service as very good / good



140

improved their income levels

£5400 distributed to destitute clients



43

clients improved their immigration status

2 family reunions



1 successful fresh Asylum claim



Getting started with PiktoChart



See our [Piktochart Quick Guide](#)

Watch this!

PiktoChart created a video for Superhighways to give local groups ideas for infographics, design tips and more. [Watch now](#)

Look out for the following templates in the Reports section:

- NGO Impact Report
- Minimalistic Report



Why use Infogram?

- ✓ Create reports, infographics, slides and single maps & charts
- ✓ Free basic account
- ✓ Highly interactive
- ✓ Can't download your content for free
- ✓ Officially compliant for [accessible](#) content
- ✓ Non-profits have to enquire for discount – Pro license is \$19 per month for the annual subscription
- ✓ Intermediate skills to use

Basic

Get started for free to see how easy it is to design beautiful data visualizations with Infogram.

Free

Forever

Start for Free

- ✓ 37+ interactive charts types
- ✓ Up to 10 projects
- ✓ Up to 5 pages per project
- ✓ 13 map types
- ✓ Publish your content online
- ✓ Import data
- ✓ Object animations



Further data visualisation resources

How people perceive visual information

- [5 psychology studies with top tips](#)

Choosing the right charts

- [Quickly choose the right type of chart](#) for your data (there are even Excel or PowerPoint templates to download).
- Explanation of [which charts you should select](#) in different scenarios

Choosing the right colours

- [The rule of three colours](#) – choosing your colour palette
- [Adobe colour wheel](#) for finding complementary colours
- [Upload a photo](#) to choose a colour scheme e.g. your logo



**Break
time!**



Mapping with Batchgeo

Create a map:

1

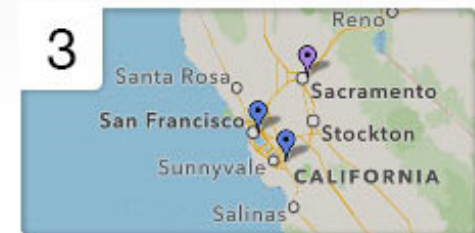
952 Meadow Lane	Merrick, NY	(811) 199-272
854 Bridge Street	Lawrence, MA	(822) 264-034
127 Clinton Street	Stafford, VA	(811) 006-401
650 Somerset Drive	Charlotte, NC	(822) 901-258
447 Linden Avenue	Jenison, MI	(822) 709-532
623 Woodland Avenue	Warwick, RI	(833) 876-228
876 Forest Drive	Westport, CT	(855) 977-097

Copy your data

2

Region	United States
Location / Address	Example Address
City / County	City
State / Postcode	State

Validate & set options

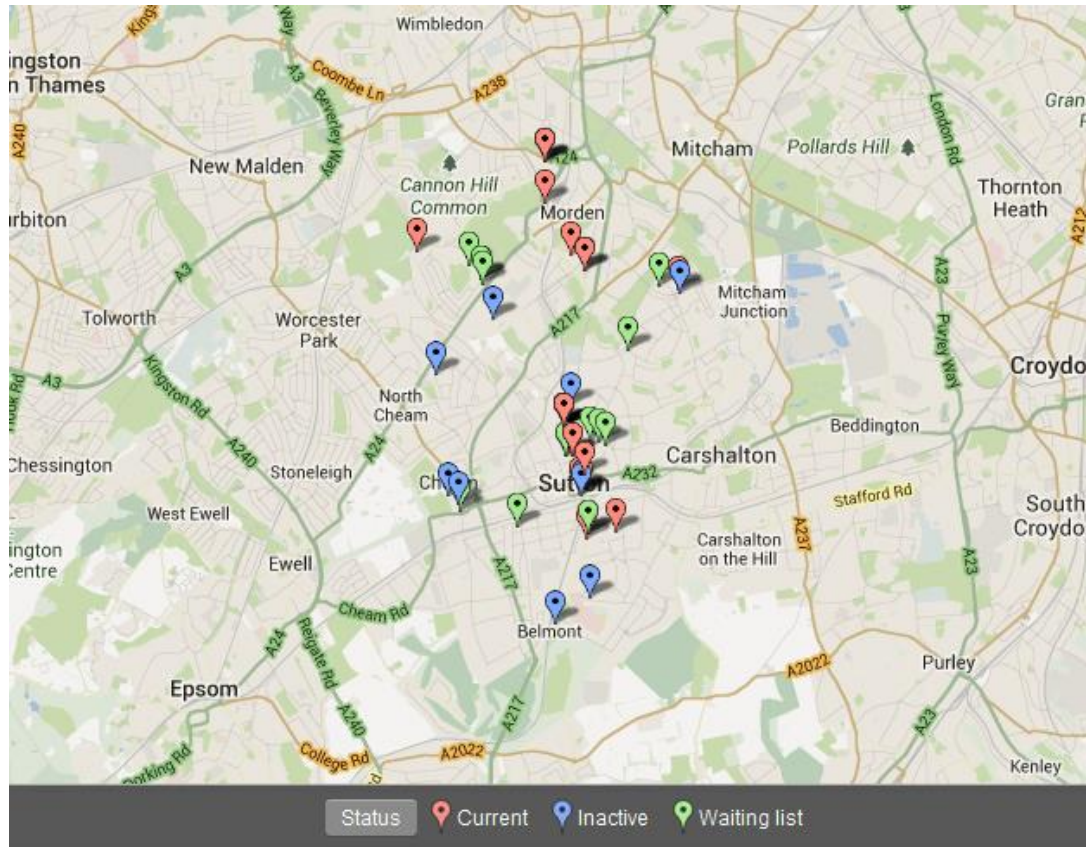


Map locations

<http://www.batchgeo.com/>



Simplest map creation...



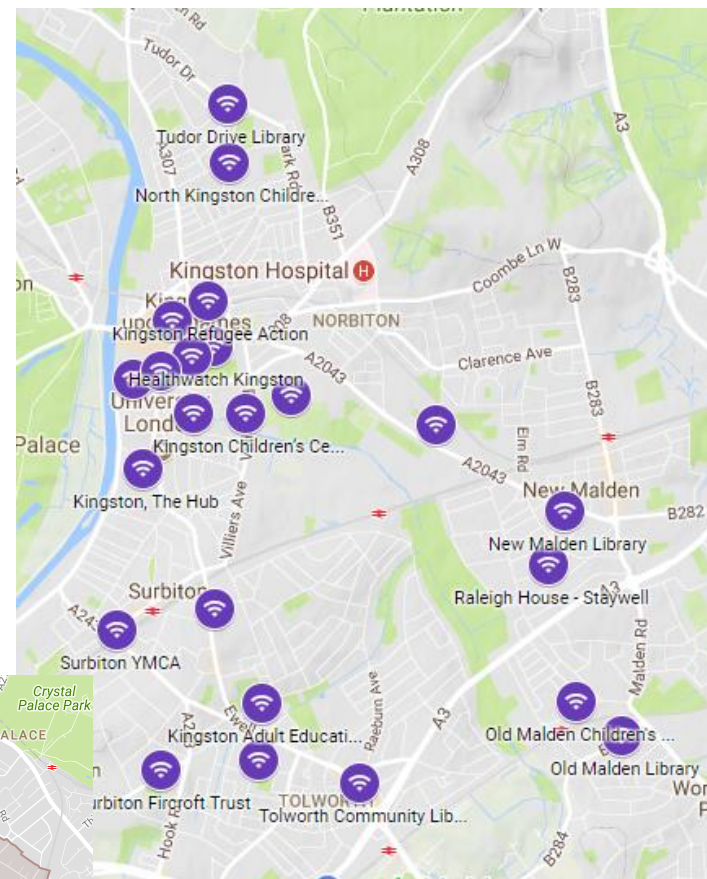
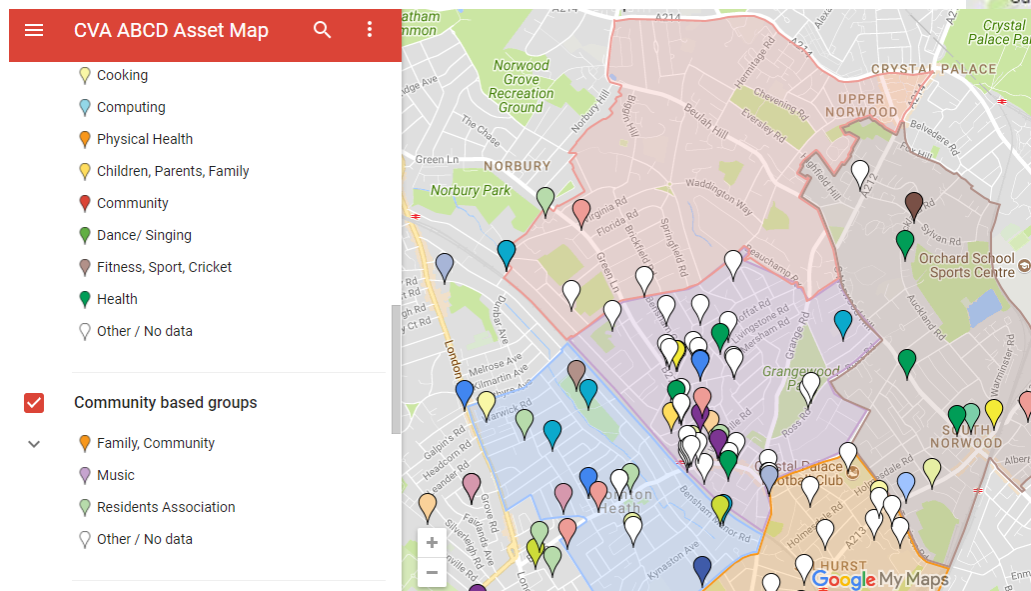
Paste data sets
with postcodes
& create a
map!

See our
[Step by step
guide](#)

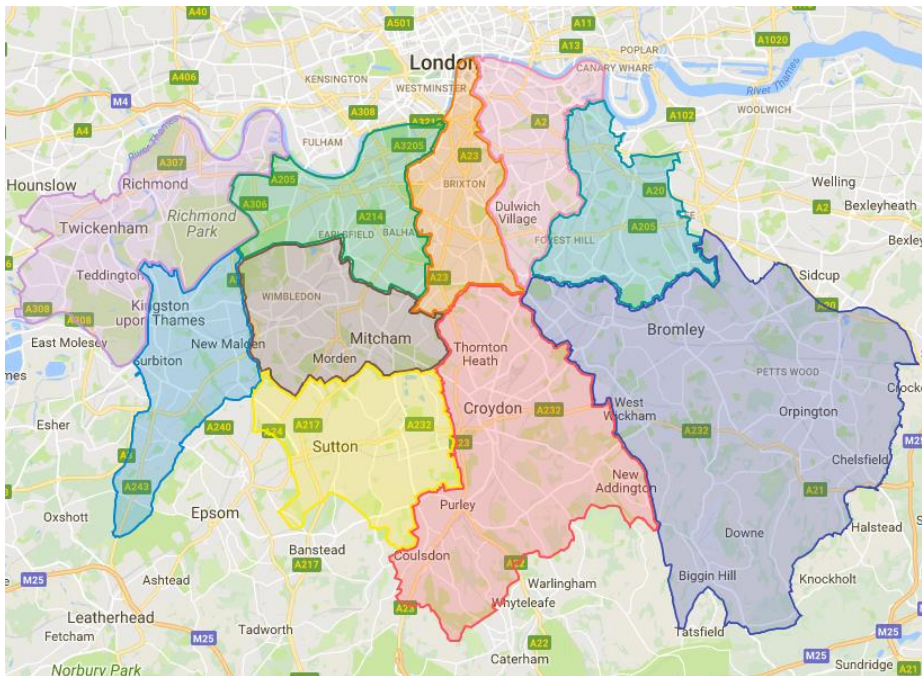


Google My Maps

- Add points on a map
- Add multi-media
- Add different layers (max 10)
- Customise look and feel



Borough & Ward – KML files



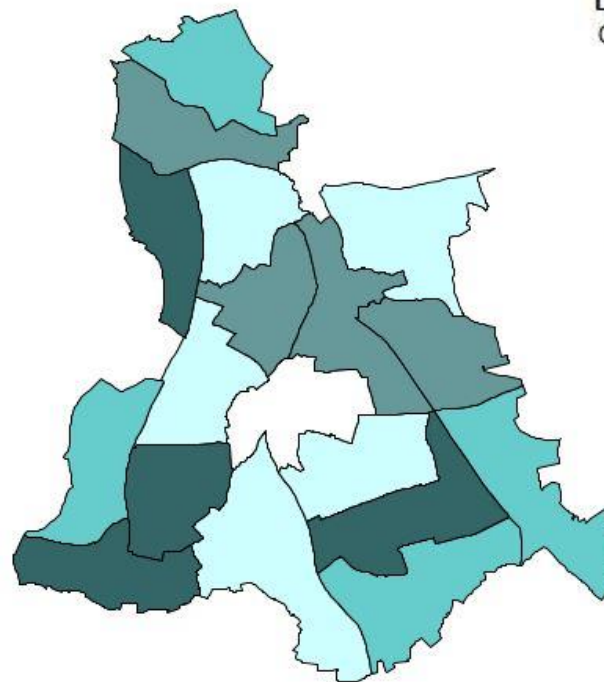
See our
[Step by step guide](#)



Choropleths

- London Data Store Borough & Ward [Excel mapping templates](#)

Code	Ward name	Values
00AZGD	Bellingham	100.0
00AZGE	Blackheath	105.0
00AZGF	Brockley	110.0
00AZGG	Catford South	115.0
00AZGH	Crofton Park	120.0
00AZGJ	Downham	125.0
00AZGK	Evelyn	130.0
00AZGL	Forest Hill	135.0
00AZGM	Grove Park	140.0
00AZGN	Ladywell	145.0
00AZGP	Lee Green	150.0
00AZGQ	Lewisham Central	155.0
00AZGR	New Cross	160.0
00AZGS	Perry Vale	165.0
00AZGT	Rushey Green	n/a
00AZGU	Sydenham	175.0
00AZGW	Telegraph Hill	180.0
00AZGX	Whitefoot	185.0

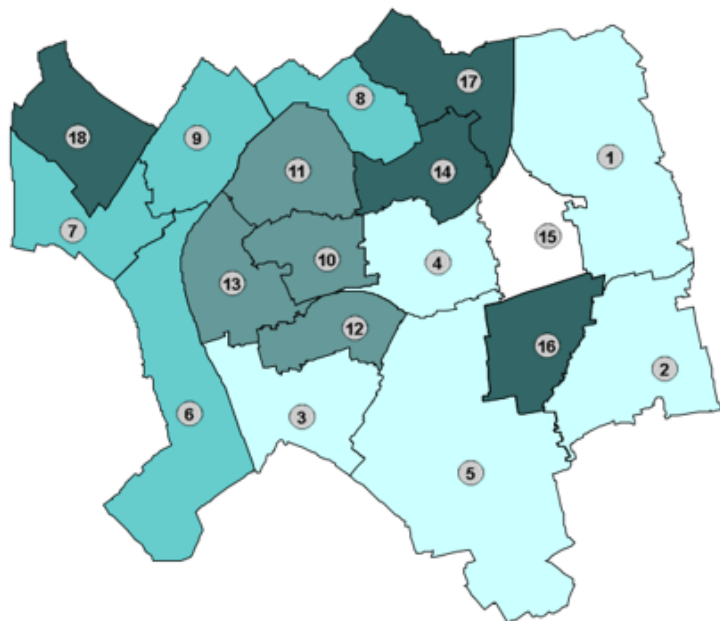


Legend

Quantiles	Low (\geq)	(<) High	Occurrences
1	100	121	(5)
2	121	143	(4)
3	143	164	(4)
4	164	185	(4)
5			
No data			(1)
			(18)



Indices of deprivation by Ward

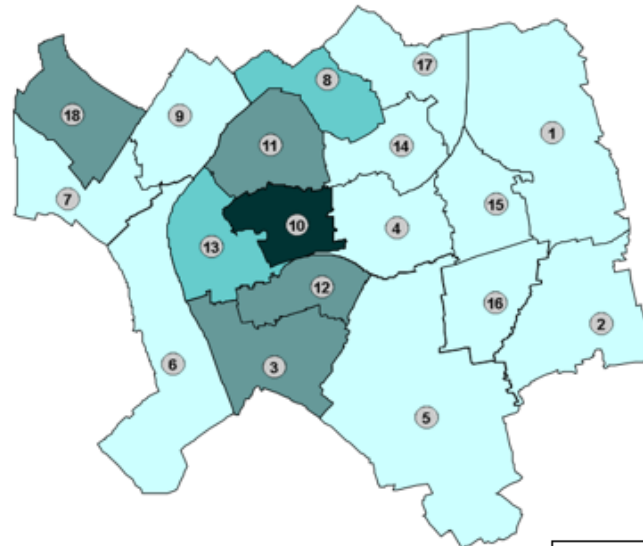


Darker shades represent higher levels of deprivation

Low (\geq)	(<) High	Occurrences
100	121	(5)
121	143	(4)
143	164	(4)
164	185	(4)



clients by Ward



Darker shades represent higher numbers of clients

Low (\geq)	(<) High	Occurrences
1	5	(11)
6	10	(4)
11	15	(2)
16	20	(1)
21	25	

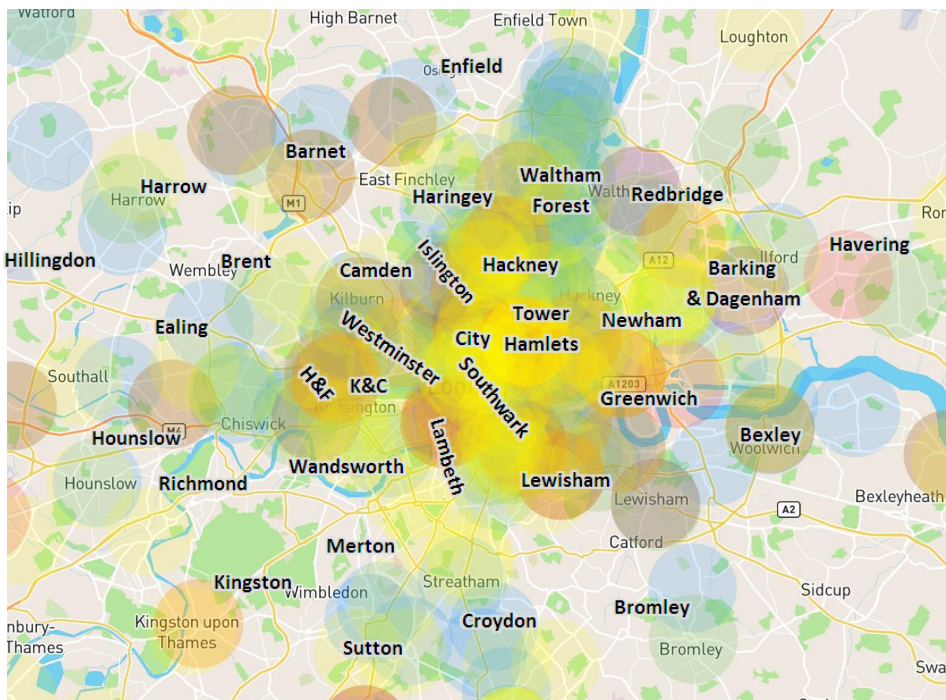


WARD KEY

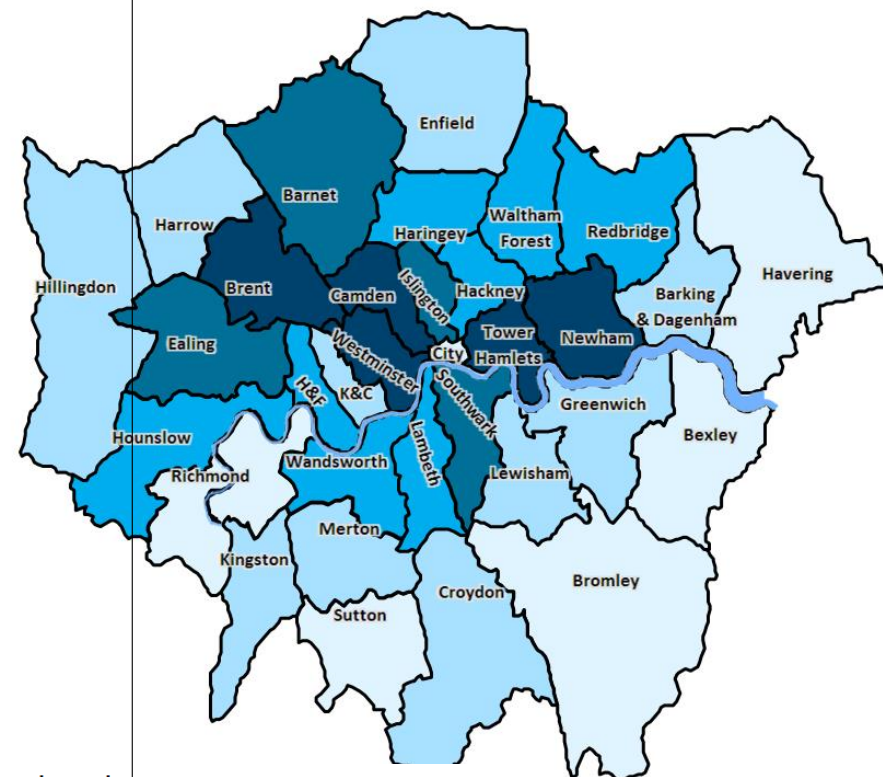
- 1 Beddington North
- 2 Beddington South
- 3 Belmont
- 4 Carshalton Central
- 5 Carshalton South and Clockhouse
- 6 Cheam
- 7 Nonsuch
- 8 St. Helier
- 9 Stonecote
- 10 Sutton Central
- 11 Sutton North
- 12 Sutton South
- 13 Sutton West
- 14 The Wrythe
- 15 Wallington North
- 16 Wallington South
- 17 Wandle Valley
- 18 Worcester Park

Location of free immigration advice

Sources: 360Giving, Charity Base & OISC registration



International migration – local authority inflow 2016/17 data



Legend				
Equal ranges	Low (\geq)	($<$) High	Occurrences	
1	0.0	2,500.0	(7)	
2	2,501.0	5,000.0	(13)	
3	5,001.0	7,500.0	(8)	
4	7,501.0	10,000.0	(1)	
5	10,001.0	15,000.0	(4)	

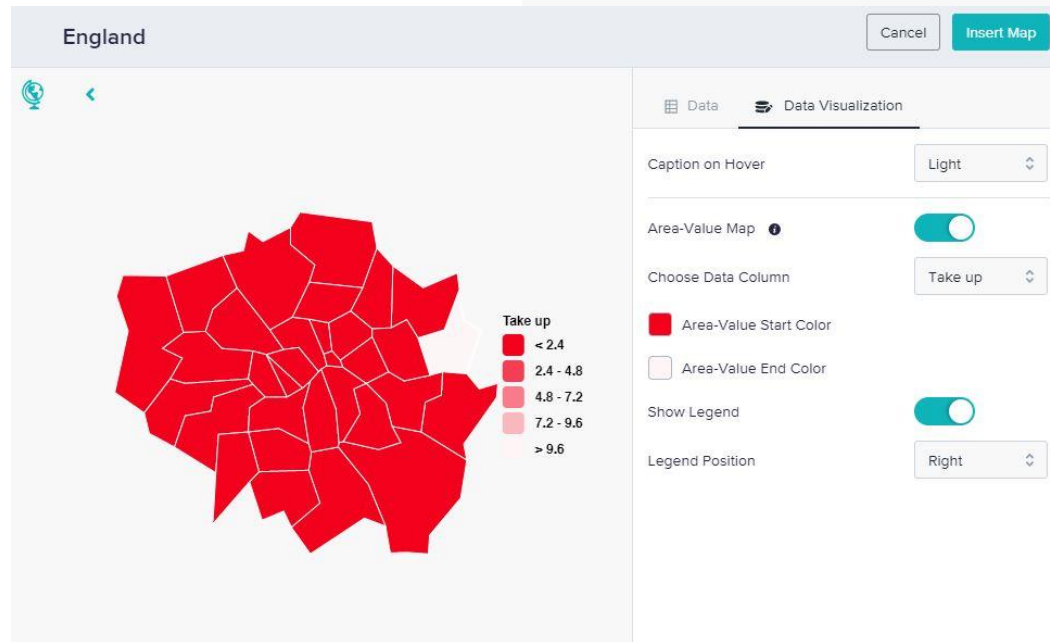
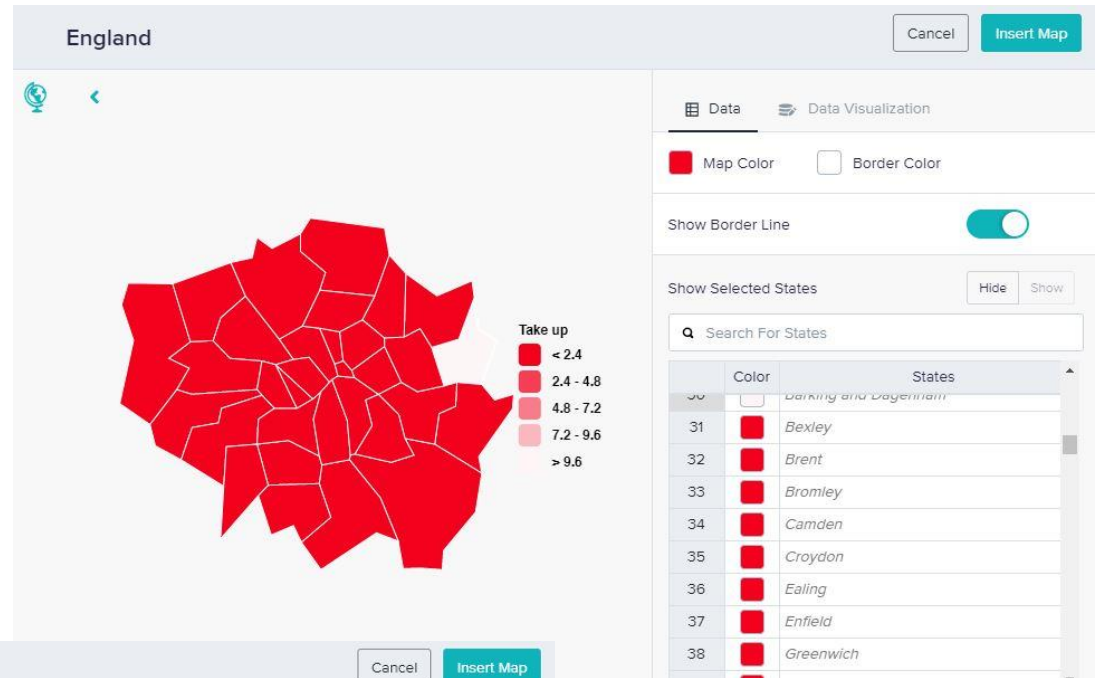


London Cartogram



Piktochart

- Find Maps in the Tools option
- Select England
- Show / hide areas



- Data vis – add your own data

[See their blog](#)



Activity 3: Create a map using Batchgeo

1. Go to <http://bit.ly/BatchGeoData>
2. Download the Dummy data file, open it and copy the first two columns of data (including the Header row)
3. Go to www.batchgeo.com and paste these rows into the box
4. Now click Create map
5. Give your map a title 'Test' and enter your email address
6. Go to your inbox and click on the map link
7. Click on the Services key at the bottom to toggle between different views
8. Repeat the above, this time with all **three** columns of data
9. This time Click Validate and set options before creating your map and choose Advanced options
10. Now Tick Hide map addresses
~~Limit zoom in, before creating~~
your map

The screenshot shows the 'Advanced' options section of the BatchGeo interface. It contains various settings for map creation:

- Title: Name
- Marker Description: All Columns
- Country Field: (empty)
- URL: URL
- Image URL: (empty)
- E-mail: (empty)
- Latitude: none
- Longitude: none
- Label each marker: none
- Select a default map view to show: street
- ☐ Enable clustering for high density markers
- ☐ Calculate (straight line) distance from first address in: miles
- ☒ Hide map addresses / Limit zoom in
- ☐ Disable KML export
- ☒ Links open a new Window
- ☐ Don't combine groups into ranges
- Troubleshooting
 - ☐ Filter road types before geocoding

Activity 4: Create a 'heat map' using the Data Store Excel template

1. Go to <http://bit.ly/GLAExcelMapping>
2. Download the London map or a specific Borough map
3. Open in Excel
4. Find your own data source – what do you want to show?
5. Over write the current data with your figures
6. Adjust the ranges in the key
7. Refresh your map



Advanced tools for mapping / data analysis



[Carto](#) – non profit application for the Builder application



[Tableau](#) – non profit discount available via [Tech Trust](#)



[Flourish](#) – free for public maps



[Arc GIS](#) – mapping & analysis – free public map option



[Mapbox](#) – another mapping tool with a free entry level tier



[PowerBI](#) – data analysis tool with mapping options – free desk top download or switch on

Bringing it all together....

Storytelling essentials



Long form / visual report tools

A balance of stories vs numbers...

Esri Story Maps - <https://storymaps.arcgis.com/en/>

- [Florida legal aid](#)

Shorthand - <https://shorthand.com/>

- [My life on a plate](#)
- [Place based data](#)

Adobe Spark Page – <https://spark.adobe.com/make/website-builder/>

Office 365 Sway - <https://sway.office.com/>



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