Close your eyes, and allow yourself to be led by the hand, and placed in a particular part of a random city that you don’t know very well.

**Now open your eyes…**

What are the signs that you would see that would indicate to you that you were in the suburbs rather than closer to the centre of the city, in the inner city area, or beyond the urban area completely? What geographical clues are there in the nature of the urban fabric, the demographics of the people you would see, the ways that the land was used, or other clues in the infrastructure?

**What are the suburbs?**

The suburbs are a zone of change and reinvention, which is why they should be of interest to geographers. They are a place where the rural meets the urban, a zone of indeterminate width, which is located around the edges of towns and cities of any significant size. Historically, they have been home to families with ‘2.4 children’; a place of cul-de-sacs; where those who can afford to do so, escape the city-centre to live in a slightly larger house, with a garden, and off-road parking, but accept that with this compromise comes a longer journey to work in the ‘rush hour’. Over time, the suburbs have spread outwards, and required planning constraints to stop their endless sprawl, which has previously allowed them to swallow up surrounding villages as cities have expanded. The present Greater London area is made up of a collage of previously separate villages and towns.

![Broomhill, a suburb of Sheffield](image)

Other words are also used for these areas, including rurban, ‘edgelands’, periphery or the ‘exurbs’. Some suburban development has leapfrogged the green belt land (which was designated back in the 1950s to prevent indiscriminate expansion of towns) to produce dormitory villages, which empty out during the day in the working week as residents move into the city for work. This daily circulation of people from the suburbs to the middle and back again is part of the routine of city life.

A dictionary definition of the suburbs says that they are:

“an area on the edge of a large town or city where people who work in the town or city often live” which doesn’t really tell their whole story, or their complexity for geographers.

*Eight out of ten people live in suburban areas.*
**What are the characteristics of the suburbs?**

Historically, the suburbs were a place where the middle classes moved to escape the grime of the inner city. As public and private transport became first available, and then affordable, there was an exodus to cleaner air (particularly, the story goes, to the west of the city centre). According to the architecture critic, Ian Nairn, writing in the 1950s, the result was “subtopia”. Alan Berger referred to the areas of urban sprawl as a “drossscape”. John Grindrod, in his book ‘Outskirts’, talks about a life lived “at the outskirts of both town and country, on the dotted line between both”.

What of today’s suburbs?
What are they like? Are they actually ‘all the same’?

**This is where you come in…**

**What is this enquiry about?**

This investigation will ask you to **compare at least three suburban areas**, and identify some similarities between them, by unpicking some of the differences that they exhibit, backed up with data and mapping. You will be asked to use a range of **free GIS tools** and Census data accessed through some modern visualisation tools, and other tools that geographers use.

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*Although the focus here is on the suburbs, these tools could also be used to explore other areas of the city.*

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Choose 3 appropriate areas of suburbs for your investigations. You may wish to choose:
- Suburbs on the edge of cities of different sizes
- Suburbs with different levels of development e.g. prosperous or economically troubled
- Suburbs with a long history, or those which developed more recently in cities undergoing rapid growth
- Suburbs where some contested issue is occurring, or where there are some concerns over a proposed development
- One suburb in London, where there is a wider variety of data available

Teachers may suggest particular cities, or suburban areas, which they want students to focus on. It would be useful to have a postcode of a building near the centre of the study area, which could be used in some of the mapping tools we will suggest.

**Menu of choices**

We have provided a range of options which students could be directed to.

1. Sourcing Census Data: the ONS and Datashine
2. When were your suburbs built?
3. What do the suburbs look like?
4. What are the suburbs made of?
5. What are houses like in the suburbs?
6. “This is the sound of the suburbs…” – how have the suburbs influenced culture?
7. ‘Metroland’: still archetypal suburbia?
8. Where do the people in your suburb work?
9. How does the quality of life vary in different suburbs?
10. How can suburbs be described?
11. Impact on voting
1. Sourcing Census Data: the ONS and Datashine

The Census of 2011 was the last major data collection exercise. All households received a form with 56 questions to answer. You can see the actual form here.

How have the answers that your family would have entered on this form changed since 2011? This gives you an idea of the difficulty in keeping up to date with statistics on this scale, as a result of endless small changes in circumstances.

The Census data took several years to process, and was released in stages by the Office for National Statistics (www.ons.gov.uk). A number of visualisations and web maps have been developed to enable access to this data, and for particular data sets to be downloaded for access and analysis. The ONS also release estimates of population in between the main census. The most recent one for mid-2016 is here, at 65.6 million.

ONS Data Explorer, the previous way to search through Census data, was shut down in May 2017. The replacement is called NOMIS, and allows data downloads (www.nomisweb.co.uk). It allows for searches to be carried out using a series of drop-down choices. This requires a little knowledge of how census data is organised to use effectively.

An example NOMIS search would start:
Choose ‘Data Download’ > Query Data
> Census 2011
> Key Statistics

Datashine (www.datashine.org.uk) is a tool which has been produced by Oliver O’Brien, who works with James Cheshire at the Centre of Advanced Spatial Analysis (CASA) at UCL. It has become an essential tool for geographers needing to explore and visualise census data, with no cost.

Enter a postcode and choose a Census data set from a dropdown box to see it visualised. Use this to compare your chosen three areas.

For those colleagues who are teaching in Scotland, your version of Datashine is here: www.scotland.datashine.org.uk
It is also possible to download the maps as a PDF (for inclusion into projects as secondary sources) and the data can also be downloaded as a CSV file. These files can be used in other GIS packages and tools such as ArcGIS online. We recommend changing the colour ramp from the default setting for clarity.

2. When were your suburbs built?

The CDRC (Consumer Data Research Centre) offers a range of maps, which have been created using data generated from consumer data. House ages are one of several data sets, which can be accessed through the tool.

Mapping has improved dramatically in the last few years, with a range of new tools and options for interactive web mapping.

Visit the CDRC website linked to above, and enter a postcode to identify a particular area that you are interested in.

When were the main suburb building periods?

Suburbs have grown at different times. There was a wave of building during Victorian times, where there were different styles, and no uniform 'feel' to them. After 1875, the suburbs evolved. There was a great deal of building in the post-war era (1930's), when the classic inter-war semi-detached house was adopted widely. This was at a time when car ownership was growing, and the attraction of a garden and the 'suburban' life was strong for those who could afford it. More recently, there has been the infill of spaces left by previous developments, as well as the use of greenfield locations.

In the 1930s, over 4 million houses were built and by the end of the 1930s, nearly a third of all families lived in a house which had been built since the First World War. Houses were built on the edge of town where land was cheaper, and more easily available. The pace of this development was unprecedented. Low interest rates at the time meant that more people owned their own homes. House ages are colour-coded as shown on the key on the next page:
Alongside the age of houses there is likely to be a change in the design, as successive periods of house building were accompanied by a change in building regulations, and the price of materials, and also trends in the use of materials such as concrete.

3. What do the suburbs look like?

Exploring the suburbs through images is another way of introducing students to those who may not otherwise be familiar with these areas. Mapcrunch is a useful site for exploring the suburbs (and indeed other areas). Visit the website, and click the options button.

Choose Map, and zoom in to the area of suburbs that you are interested in exploring.
From this, you can choose the area that you want to focus on. Zoom into the map so that it shows part of a city including a central area and one closer to the edge.

Click ‘Stealth’ and then the green ‘Go’ button at the top of the screen, and you will be shown an image within the chosen area. Clicking ‘Stealth’ again will reveal its location, but students could be asked first whether they think it is in the suburbs or not, and which of the characteristics of the suburbs they think it has.

Other images of suburbs are also available on the Geograph website. Geograph is a website which was launched in 2005. It has over 5 million images which have all been linked to a particular 1km grid square. Search on images using the term ‘suburbs’ and see where the images are geotagged to.

Are they accurately defined by the photographers that took them as being suburban? What characteristics do the images show?

You may also encourage students to add their own images to the Geograph site, especially if fieldwork is carried out.

Some suburban changes reflect demographic trends and also cultural trends. According to Joe Moran, many families no longer gather round a dining table in the way that they used to, and many modern houses are built without a dining room, or have rooms that are too small to accommodate a dining room table. Some of these new suburban developments have been likened to ‘rabbit hutches’ and there are also comments made about the uniformity of their design.

4. What are the suburbs made of?
Vernacular housing styles are something else that could be explored with students. Depending on the local geology of the area, and availability of other materials, there could be a preference for particular stone, brickwork (and the way that they are laid), or other designs.
The geology that lies beneath an area can be unpicked using apps such as iGeology. This shows the bedrock geology as well as the more superficial deposits that cover them. This would identify particular rock types, or the presence of clay for brick production.

If you have a device, you can access the webmap. The British Geological Survey also provide a downloadable app for use on mobile devices such as iPad / iPhone.

Historic England (formerly English Heritage) have produced a document on vernacular housing which provides some further guidance on this area.

5. What are houses like in the suburbs?
You may not have heard of these TV shows but suburban life was portrayed in programmes such as 'The Good Life', 'Ever Decreasing Circles', ‘One Foot in the Grave’ and ‘Terry and June’. Episodes may be found on YouTube. They show semi-detached houses on quiet streets, with off road parking and a community of people who aren’t really a community as there is distrust between them in some cases. Housing varies in suburban areas, and there are several guides to these. The RGS-IBG have offered a range of fieldwork guides previously. Check out the guides here:

Urban and settlement

Fieldwork exercises

6. “This is the sound of the suburbs...” – how have the suburbs influenced culture?

Many musicians have referenced the suburbs in their music, or were born in suburban areas and drawn influences from their upbringing. The Canadian band Arcade Fire produced an interesting interactive video for an earlier album, and this can be seen here. Enter a postcode to see the website come to life along with the music.

Another track worth exploring is ‘Subdivisions’ by the Canadian band ‘Rush’. The lyrics reference an area that is ‘sprawling on the fringes of the city’, and the video shows the draw of the city for people living on the edges. They also have a track called ‘Middletown Dreams’, which reflects on several people whose dreams never really took flight, but seem content that “life’s not unpleasant in our little neighbourhood”.

We have produced a Spotify playlist for this unit, which can be listened to here. We have also created a Pinterest board of images.

7. Metroland: still archetypal suburbia?

In his book “A good parcel of English soil”, Richard Mabey describes the creation of Metroland, which was a marketing tool of the London Underground lines.

Charles Pearson, who was a Solicitor to the Corporation of London was a regular traveller into London, and noted on his journeys that the better-off population of London was moving to the countryside around London in the weekend and decided to promote the development of areas along the Metropolitan Line.

This short-term movement was originally called oscillation, although it has come to be known as ‘commuting’, and another term that is used for the wider area surrounding large towns is the
‘commuter belt’. In recent years, the belt has had to be taken out a notch with the advent of super-commuters, including stories of people who commute from France into London.

Mabey describes the suburbs, in ecological terms as an ecotone, where two ecosystems merge into each other. One option for your enquiry is to include this archetypal suburban area in your exploration, and see whether it still has the same characteristics that it may have had in the past. Julian Barnes wrote a book called ‘Metroland’ which was set in this landscape, and described it as being a ‘background metaphor for disappointment’. It describes the post-war change in living style which the suburbs represented. Explore the streets (whether virtually or by carrying out fieldwork) and try to capture the spirit of the suburbs.

8. Where do the people in your suburb work?

This section uses another map project produced by Ollie O’Brien, and explores the patterns of commuting across the capital. Move the map so that it is centred on London, and explore how Londoners commutes to work. From which parts of London do most people leave, and where do they go? Consider how they might make this journey, and connect it to the famous London tube map for example.

How might these patterns affect the growth of the suburbs?
The average speed of traffic in London in 2016 was apparently less than 8 miles per hour - ‘the speed of a horse and cart’.

This was despite the introduction of the Congestion Charge in February 2003. Originally it was £5 per vehicle, but was then increased to £8, then £10, and is now £11.50. The zone where charges are imposed has also increased.

How do people get to work?
Statisticians refer to an area known as a ‘Travel to Work’ area. An ESRI interactive map has been created to help explore these areas.

Some people cycle to work shown in this cycle commuting map which shows the area from which commuters are drawn for each town and city.

Cambridge and Oxford are cities which try to encourage cycling in various ways. Are these sorts of investment found in suburbs, or are city-centre areas prioritised?
9. How does the quality of life vary in different suburbs?

Illustrsteets offers to provide a numerical value which connects with the idea of quality of life. How could that best be defined? What indicators would you use to ‘measure’ residential quality of life?

Visit the Illustrsteets app site and click “Where to live in England” to see the data. Remember that many people choose to live in the suburbs believing that their quality of life will be better. The site produces a rating for suburbs. Having looked at other data and perhaps some images, students could perhaps be asked to ‘ground-truth’ a local area, by visiting it. Do they agree with the site’s rating? One indicator that has been used is access to fresh food. There are ‘food deserts’ which are places where fresh food is hard to find. These are often in the areas which score poorly on quality of life indicators. This has been developed into some maps recently.

10. How can suburbs be described?
The new A Level unit on ‘Changing Places’ encourages students to develop the skill of being able to describe the way that places are ‘created’.

‘Placemaking’ is a concept that requires a little unpicking with students, but refers to the way that a specific geographical location develops, and is made from a series of decisions made over many years, which add a new layer of activity or land use to a location, which are not identical to others.

This diagram was included in a National Geographic education resource. The diagram suggests how the geographer ‘sees’ the landscape. The whole booklet is also useful to explore.
Describing the places where people live is important for geographers. We use a range of vocabulary to describe them. Here's a word cloud which was generated from comments made by geographers when asked to describe the suburbs.

Which were on your list? What is missing? Is this a mostly optimistic or pessimistic view of the suburbs?

This was made with [www.wordart.com](http://www.wordart.com) but there are other options and apps for creating your own.

**11. Impact on voting**

What impact do the suburbs have on the political landscape of the UK? In 2012, the Mayor of London elections were held. Boris Johnson, of the Conservative Party, secured a second term in office over the Labour candidate, Ken Livingstone. Looking at the election data, provided by [London Elects](http://London Elects), patterns can be identified in the voting share of the Conservative Party, British National Party and UK Independence Party, all on the right of the political spectrum.

Looking at the infographics, how do you think the geographical socio-economic structure of London affected the 2012 Mayor of London election?
Some additional activities for students to try:

1. ‘Most likely to’ activity
Start thinking about the nature of the suburbs using a ‘most likely to’ activity. This has been a familiar activity for some for many years since it was included in the ‘Thinking through Geography’ series of books edited by David Leat. Here’s the start of an ‘updated’ version with some of the things you might see in present-day cities that wouldn’t have been in the original book – can you think of some others?

In which of these zones would you be ‘most likely to’ see these:
Choose from: CBD / Inner City / Suburbs / Rural fringe

<table>
<thead>
<tr>
<th>An e-cigarette retailer</th>
<th>A park with flower-beds maintained by the local council</th>
</tr>
</thead>
<tbody>
<tr>
<td>A multi-storey car park</td>
<td>Fly tipping</td>
</tr>
<tr>
<td>An artisan bakery</td>
<td>A skate park</td>
</tr>
<tr>
<td>A re-developed riverside warehouse being used as a business hub</td>
<td>A bicycle hire docking station</td>
</tr>
</tbody>
</table>

Add your own ideas, think about what you may find in different parts of a city…

2. Hot seating
Identify a number of areas which lie within the suburbs of major cities, and issue students with one of these postcodes at random. They are responsible for becoming the expert in those particular urban areas, and explaining how they developed to other students.

3. Is West best?
Earlier on, I alluded to the story that the wealthier people tend to live in certain areas, which produces inequality within cities. In many books, it describes the problem of pollution being blown over the city by prevailing south-westerly winds.

Choose a city, and explore the quality of life and other indicators (perhaps some Census health indicators) in suburban areas to the east and west of the centre. Is there any evidence of west being best?

This activity would work well with the use of a CleanSpace tag. This can be purchased to go along with a free app, which measures air quality: [www.our.clean.space](http://www.our.clean.space) and contributes the readings to a community site.

4. Walk the line
Adopt the ideas behind one of Daniel Raven Ellison’s transects, and walk a line through a suburban area, taking images at intervals. See the [Urban Earth video](http://www.urbanearthvideo.com) for London (or another city) to see this approach at work, and try to identify when the suburbs begin and end. Find out more about [Urban Earth and Dan’s other projects](http://www.urbanearthprojects.com).

5. A hole in one?
Alasdair Rae has been working with the OS Greenspace data to reveal a number of spatial trends. Suburban areas often give way to the green space of golf courses, of which there are a surprising number. In sitcoms, golf is a common sport where the characters have to meet ‘the boss’ and try to lose to them. View Aladair’s maps [here](http://www.aladairmaps.com). He has also shared the data in a Google Sheet for you to access [here](http://www.aladairsheets.com).
6. Public or Private?
Public private spaces are more a feature of the CBD and areas closer to the centre of town, but there are some retail parks closer to the suburbs that also fall into this category. These are often private property, patrolled by private security guards, and where you may be asked to leave if you behave in a certain way. Bluewater Shopping centre famously banned young people wearing hoodies back in 2005. Are such bans still in place? Is suburbia where Neighbourhood Watch is more likely? Public-private spaces are being identified in London, and this Guardian article describes the creep of such places, and identifies them on a map.

7. Put your suburb on the map
Digimap for Schools is one way to create maps for exploring the suburbs. The annotation tools allow for images and other labels to be added, bespoke maps to be created, and saved as a PDF file for printing.

The historical growth of suburbs can also be traced using the historical mapping feature, and there is integration with Geograph photographs too.

OS maps are also available as a layer on Bing Maps, and have been added as a layer to ArcGIS Online for subscribers.

It was announced in April 2017 that all UK schools would have free access to ArcGIS Online. Visit www.arcgis.com and register your school for a free account.

Also, use the National Library of Scotland’s Spy glass feature to peer into the past.

Further Reading
Paul Farley and Michael Symmons Roberts - ‘Edgelands’ (Jonathan Cape, 2011)
John Grindrod – ‘Outskirts’ (Sceptre, 2017)
Richard Mabey – ‘The Unofficial Countryside’ (Little Toller, 2010)
Rowan Moore – ‘Slow Burn City’ (Picador, 2017)
Joe Moran – ‘Queuing for Beginners: The Story of Daily Life From Breakfast to Bedtime’ (Profile, 2008)
John Widdowson and Alan Parkinson – ‘Fieldwork through Enquiry’ (Geographical Association, 2013)

‘The Heritage of Historic Suburbs’ – English Heritage
Read this Telegraph article, which describes Julian Barnes’ connection with Metroland.

RGS-IBG Ask the Expert – Dr Peter Stiff, OCR Principle Examiner, answers questions on the suburbs.

Green Belts
Green Belt is a planning and land use strategy that aims to prevent urban sprawl by keeping the land permanently open. This restricts the expansion of urban settlements and safeguarding the countryside and historic villages. There was a very useful interactive map produced for ‘The Daily Telegraph’ a few years ago, which is still available.

Greenspace mapping from the OS:
Alasdair Rae delved into this, and produced a number of useful additional maps.

Free resources have been produced for the Digimap for Colleges and OS MapStream services.

• Check out: the Digimap for Colleges resources for a resource on the edges of Urban areas and how they have changed – this could act as a complimentary resource to this activity.
- Download the MapStream activity On the Fringe which looks at the countryside just beyond the suburbs, and how it is threatened in some cases by the erosion of green belt protections.

Daniel Raven Ellison walked across all of the UK’s cities and National Parks during 2016 as part of a project involving Cisco. Listen to Daniel talk about this project at the ESRI UK User Conference in May 2017 here:

The Field Studies Council has adapted the format of their vegetation and wildlife identification keys, and created two documents which would be of use for those exploring suburban areas and using GIS.

There is a useful set of materials here.