Edexcel GCSE Geography A

Practical support to help you deliver this Edexcel specification

Edexcel GCSE Geography A offers a theme-based approach to the content and assessment, with separate physical, human and skills-based components. As with all GCSEs, the guided learning hours is 120 hours over two years. This document provides a topic guide for teaching Component 2, Topic 4, and can be adapted by centres to fit their own contexts and teaching styles. It has been produced as an example approach and is not intended to be prescriptive. The topic guides indicate resources that you can use to support your teaching. These are only suggestions and you are encouraged to use a wide range of resources to suit the needs of your own students.

The advised teaching time for Topic 4: Changing Cities is 16 guided learning hours; i.e. roughly four hours to cover the overview section (Key ideas 4.1 and 4.2) and a further 12 hours to cover the two chosen case studies. This requires some blending together of the detailed content. In the guidance below, suggestions are made about contextualisation or stretch challenges that may be suitable for more able students, as well as expected lesson outcomes for those less able. Please note that these are suggestions only and not specific syllabus requirements.

The two- and three-year course planners suggest appropriate times to introduce this material and how the fieldwork (Topic 7B) and the UK Challenges content (Topic 8) could be integrated into a scheme of work. For example, centres may choose to deliver the overview section first and the follow this by conducting the fieldwork investigation before returning to the two case studies. Also, centres may choose to do this at the end of the course, or integrate it into the delivery of specific topics. For example, after the delivery of Topic 4, centres may opt to deliver Key idea 8.2, 'The UK settlement, population and economic challenges'.

Each Key idea is broken down into roughly two one-hour sections; each beginning with a quick overview of the breadth of the content followed by a more detailed explanation of the key concepts and processes, examples of teaching strategies, guidance on integrating geographical skills, and a summary of the key terminology required. The structure is suggestive, not prescriptive.

Synoptic linkages and case study nesting

There are several things that you might like to consider when planning for the delivering of this topic, such as:
 - nesting the case study of a city in a developing/emerging country in the same country that you choose for the development study (Topic 5)
 - integrating the UK Challenges content into the teaching of the core content for this topic
 - choosing a case study from a country that has been studied at KS3
 - ensuring that all of the Integrated skills 1–7 have been covered during the delivery of this topic.

Topic Guide for Component 2, Topic 4: Changing Cities

Introduction

Quick overview

An understanding of global urban processes and trends. The changes and challenges in major cities that result from processes; including migration, deindustrialisation and globalisation, andhow these challenges are being managed in cities in contrasting parts of the world:
- EQ1: An overview of urban patterns and processes
- EQ2: Case study of a major UK city
- EQ3: Case study of a major city in a developing country or an emerging country

The aim of this topic pack is to get a big-picture overview of the key urban processes and trends that shape the world, the challenges that these pose for people living in major cities and how these challenges are being managed. The ideas studied here help bring together human geography and people-environment issues for other concepts in Component 2 (Topic 5: Global development) and Component 3 (Topic 8: UK Challenges).

The first part of this topic provides an overview of the contrasting trends in urbanisation around the world over the past 50 years, and the reasons for these differences. Students are then required to carry out two in-depth case studies of major cities in contrasting parts of the world (one in the UK and one in a developing/emerging country). The structure of the case studies is broadly similar: students begin by studying the context of the chosen city, before moving onto the reasons for, and impacts of the changes that are taking place in the city. The final part of each case study provides students with the opportunity to explore some of the strategies and approaches that have been taken to manage the challenges facing each city. The approach is similar to GCSE Specification B, but the breadth of content is different because a major UK city is not studied in depth on Specification B.

There are three broad key things to bear in mind:

1) Getting the right level of detail about the urban patterns and processes in Key ideas 4.1 and 4.2. Remember, the purpose of this section is to provide an overview and some context for the chosen case studies to be placed in.

2) Making sure students know enough about the two chosen case studies and are able to compare and contrast the ways in which the challenges are managed.

3) Integrated skills 1–7 will be delivered across the eight Key ideas in this part of the specification

Enquiry Question 1: Overview of urban patterns and processes

Teaching approach over four hours

Lesson 1 (1 hr)	Urbanisation is a global process (1)
Lesson 2 (1 hr)	Urbanisation is a global process (2)
Lesson 3 (1 hr)	The degree of urbanisation varies across the UK (1)
Lesson 4 (1 hr)	The degree of urbanisation varies across the UK (2)

Lesson 1: Urbanisation is a global process (1)

Overview

The first lesson tackles Key idea 4.1a by providing an introduction to the process of urbanisation and how the nature of urbanisation is different in emerging, developing and developed countries. Students will understand that the rate of urbanisation does vary around the world, with the fastest rates occurring in emerging and developing countries.

- More able students might like to consider both past and predicted trends of urbanisation in countries and different levels of development. Independent research could be carried out to find supporting data that would enhance descriptions.
- Less able students could be guided to describe overall trends of urbanisation in different continents and to identify the relationship between the rate of urbanisation and level of development.

Key concepts and processes

Much of the content for this topic is new to GCSE Geography courses although aspects of it can be found in the units from the 2012 Specification A Unit 3, Section A: Settlement change and in the Changing urban environments topic in Unit 2 of the 2012 AQA Specification A.

In summary students need to know and understand:

- the overall global trend in urbanisation over the last 50 years
- the contrasting trends in urbanisation in different parts of the world.

Students will need to be clear on the meaning of the term 'urbanisation' and understand that the rate of urbanisation both within and between countries has changed over time.

Students need to understand clearly that:
- the global proportion of people living in urban areas has increased over the last 50 years. The urban population in 2014 accounted for 54% of the total global population, up from 34% in 1960, and continues to grow
- the global proportion of people living in urban areas is expected to continue to rise further over the next 50 years

- the rate of urbanisation has been uneven, with the largest increase taking place in emerging and developing countries
- the number of megacities has increased in the last 50 years, with many now being located in emerging and developing countries.

See the WHO graphs at http://www.who.int/gho/urban_health/situation_trends/urban_population_growth/en/ and http://www.who.int/gho/urban_health/situation_trends/urban_population_growth/en/index1.html for a way in to these issues.

Guidance on teaching

Two common misconceptions about urbanisation are that students believe the majority of people over the last 50 years have lived in urban areas and that the areas with the fastest increase in urban populations are found in developed countries. Starting with these misconceptions often helps students to appreciate that it was not until the last 10 years that the percentage of the global population living in urban areas overtook the percentage living in rural areas. From here on, the use of graphs and maps can be used to demonstrate how the urban population in developed countries has remained fairly constant – which contrasts markedly with the urban population in many emerging and developed countries. Prior understanding of population and migration from Key Stage 3, including rural to urban migration, can help students begin to understand the reasons behind these contrasting trends.

Example strategies for teaching include:

- collecting data from the internet about urban populations in different parts of the world and plotting this information on a line graph – this will also help to reinforce skills from other topics in the specification
- using past and present world maps to show the changes in the number and location of megacities
- using HDI maps to encourage students to make links between the rate of urbanisation and level of development.

Lesson 2: Urbanisation is a global process (2)

Overview

The second lesson tackles Key idea 4.1b by focusing on the reasons for the contrasting trends in urbanisation in different parts of the world and their effects.

- More able students might like to carry out some further research into the reasons for the industrial revolution in two developed countries. These students could also consider recent trends in some parts of developed countries where counter-urbanisation and re-urbanisation are predominant. Less able students could use images of parts of cities in different parts of the world. This could help students to identify similarities and differences, which may then progress into trying to explain these similarities and differences.

Key concepts and processes

Students need to know and understand clearly:

- how and why urbanisation has occurred at different times. Students could begin by looking at the reasons for urbanisation in developed countries and investigate the process and the reasons for industrialisation during the nineteenth century. This could then be followed by looking at why the rate of urbanisation slowed down during the latter part of the twentieth century. Students could then turn their attention to the rapid urbanisation that has taken place in emerging and developing countries over the last 50 years and the reasons for this: high levels of natural increase and rural to urban migration

- the effects of urbanisation in developed countries, including overcrowding, transport issues, service provision (pressure on education and health services) and housing (rising prices due to increased demand and the increase on private home ownership at the same time as decline in social housing with a commensurate increase in rented housing)

- the effects of urbanisation in emerging and developing countries, including farming (food production and supply is threatened as people migrate from rural areas), unemployment, shanty towns, overcrowding and service provision (including basic infrastructure such as clean drinking water and electricity)

Guidance on teaching

One common misconception about the impact of urbanisation is that it is the same, regardless of a country's level of development. To a certain extent this is true, with increased pressure on service provision and transport services; however, there are also differences in the type of impact – and students must be able to compare and contrast these. Another thing to be careful about is generalisations: students need to be aware that the impacts are not always negative – and that it is common to see both positive and negative impacts of urbanisation within the same city.

Example strategies for teaching include:

- collecting images to show positive and negative impacts of urbanisation within cities in both developed and emerging/developing countries. Use these images to evaluate the overall impact of urbanisation in an area

- using a Venn diagram template, such as the one in Figure 1, to summarise the impacts of urbanisation in countries at different levels of development.
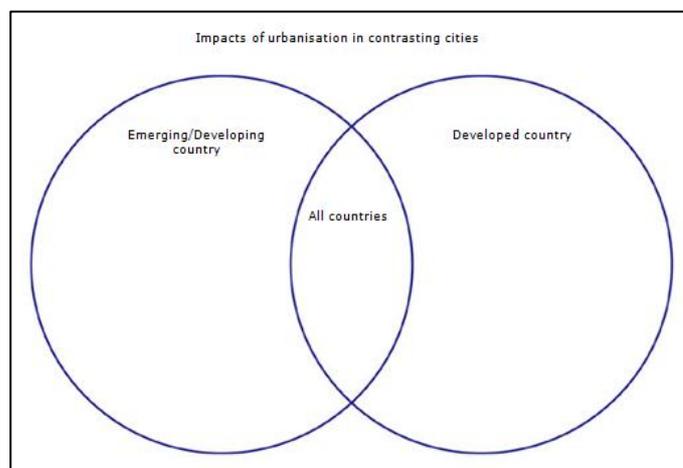

Impacts of urbanisation in contrasting cities

Emerging/Developing country

Developed country

All countries

Figure 1

Lessons 3 and 4: The degree of urbanisation varies across the UK

Overview

Students also need to study the population distribution and density of the UK and the reasons why the rate and degree of urbanisation varies across the country. Key idea 4.2a begins with an overview of the UK's population distribution; identifying regions with a high population density. This is followed by Key idea 4.2b, which focuses on the reasons for the distribution and why some areas have experienced more rapid urbanisation in the past than others.

- More able students could explore the factors affecting the location and growth of UK cities, so that they can evaluate which factors have been the most significant.
- Less able students could use an atlas and/or the internet to help them complete and annotate a map of the UK to show the location of its major urban centres and the reasons for this pattern.

Key concepts and processes

Part of the content for Key idea 4.2 can be found in units from the 2012 Specification A Unit 3, Section A: Settlement change (Key idea 2.1) and Population change (Key idea 3.1). Students need to know and understand clearly:

- the distribution of the urban population of the UK
- the location of the UK's major urban centres
- the factors causing the rate and degree of urbanisation to differ between the regions of the UK.

Guidance on teaching

One area of content that is new to this specification is the factors affecting the rate of urbanisation in the UK.

Many students struggle with extended pieces of writing; in particular, the structuring of the main paragraphs. An approach that addresses this would be to categorise the different factors into 'physical' (relief, water supply, climate and soil), 'historical' (Industrial Revolution, Enclosure Acts) and 'economic' (localised growth of tertiary and quaternary industry, growth of financial centres) and 'political' (location of national and local government, government policies).

Example strategies for teaching include:

- using GIS to create a map showing the location of the UK's major urban areas. This could include the use of overlays, for example, proportional circles to show population change
- a 'Thinking Hats' activity to explore the factors affecting the location and rate of urbanisation in the UK.
- The map at http://www.atozmapsdata.com/zoomify.asp?name=Country/ Modern/Z_UK_Pop provides some useful context.

Key vocabulary for EQ1

Urbanisation is a global process	The degree of urbanisation varies across the UK
Urbanisation Rate of urbanisation Emerging country Developing country Developed country Natural increase Major city Megacity Human Development Index (HDI) Rural depopulation Counter-urbanisation Re-urbanisation Shanty town / Squatter settlement Migration	Degree of urbanisation Major urban centre Region Conurbation Population distribution Population density Enclosure Acts Settlement Function Physical factor Historical factor Political factor Industrial Revolution Tertiary industry Quaternary industry

Further reading

- The PwC UK website provides information about rapid urbanisation.
- The World Bank website provides data about urban populations in different countries.
- The United Nations website provides some interesting information about the different rates of urbanisation around the world; including the growth of megacities.
- The World Health Organisation website provides a useful overview of the past trends in urbanisation.
- BBC GCSE Bitesize website provides information and video clips about urbanisation in developed, emerging and developing countries.
- The Centre for Cities website provides some up to date information and data for a number of UK cities.
- Different types of economic sector are often covered at Key Stage 3, but the BBC Bitesize website provides clear definitions and examples of each type here and here.
- A short history of Enclosure in the UK can be found here.

Enquiry Question 1: Case Study of a major UK city

Teaching approach over six hours

Lesson 1 (1 hr)	The context of the chosen UK city influences its functions and structure (1)
Lesson 2 (1 hr)	The context of the chosen UK city influences its functions and structure (2)
Lesson 3 (1 hr)	The chosen UK city is being changed by movements of people, employment and services (1)

Lesson 4 (1 hr)	The chosen UK city is being changed by movements of people, employment and services (2)
Lesson 5 (1 hr)	Globalisation and economic change create challenges for the chosen UK city that require long-term solutions (1)
Lesson 6 (1 hr)	Globalisation and economic change create challenges for the chosen UK city that require long-term solutions (2)

Lessons 1 and 2: The context of the chosen UK city influences its functions and structure

Overview

The specification (page 42) states that a major city is, 'a city with a population of **at least 200,000** inhabitants'. The first lesson tackles Key idea 4.3a; introducing the chosen case study by considering its site, situation and connectivity in a regional, national and global context. The second lesson covers Key idea 4.3b by looking at the chosen major city's structure, function and building age.

Students should be encouraged to understand the dynamic nature of cities in terms of how its function changes over time – and the resultant impacts of these changes on its structure (including land use) and building age.

• More able students could use a variety of maps, GIS and photographs to determine where the CBD, inner city, suburbs and urban-rural fringe actually begin and end within the chosen case study.
• Less able students must be clear about how the chosen case study has links with places on a regional and national scale. This can be taught through the use of maps of different scales; including sketch maps and atlas maps.

Key concepts and processes

Some of the content for this topic is familiar, appearing in previous GCSE Geography courses, although the requirement to complete a case study of a major UK city will be new to most centres.

Students need to understand clearly:
• the original settlement for the chosen city is most likely to have been influenced by physical factors, such as the relief of the land, proximity to water sources, geology and soil fertility. These are 'site' factors and do not change over time
• by placing the city into a regional/national/global context, the 'situation' and 'connectivity' can be considered; this includes the proximity to other settlements and the availability of transport/communication links. There is an opportunity here to refer to the influence of socio-economic, political and cultural factors whose interaction has changed over time
• the functions and age of building varies across the city and creates the city's 'structure'. Distinct land use zones can be found in every city, and these are:
  o Central Business District (CBD): the middle of the city with the oldest buildings and majority of shops, businesses and entertainment facilities

- o Inner City: the area just outside the CBD, which is mainly residential, but often with some light industry
- o Suburbs: These can sometimes be split into 'inner suburbs' and 'outer suburbs' with the main function being residential. The outer suburbs often have newer and larger buildings as land towards the edge of the city is cheaper
- o Urban-rural fringe: This is the area on the outskirts of the city. In some parts of the UK, this land has been designated as 'green belt land', which means that no development of it is allowed.

Guidance on teaching

The choice of case study to be taught requires careful consideration – sufficient data needs to be available and it may be useful if it is within close proximity to the school as it could also be used to carry out the fieldwork investigation (7B). One common misconception about settlement growth/structure is that cities have develop clearly-defined 'rings' land uses zones (as suggested by the Burgess Model). Whilst urban areas do have these land use zones, they are rarely in a concentric ring and it often difficult to determine where one ends and another one begins. It is worth revisiting the Burgess or Hoyt Model as a starting point, but then to use these as a framework when studying the chosen city.

Example strategies for teaching include:

- using Google Earth/Street View, atlas maps and OS maps to describe the site/situation and connectivity for the chosen city
- using OS / planning department maps, GIS and photographs to identify the different functions, the ages of buildings and street patterns of the chosen city
- after an introduction into urban models (e.g. Burgess), students work in pairs to match up a number of statement cards with different photographs taken around the chosen city
- using tracing paper and an OS/GIS map, draw a structural model for the city based on land uses and ages of buildings.

Lessons 3 and 4: The chosen UK city is being changed by movements of people, employment and services

Overview

Key ideas 4.4a and 4.4b cover the changes on the chosen city as a result of changing patterns of national and international, employment and service provision. It is important for students to study the population change (periods of growth, and if appropriate, decline) of their chosen city, the reasons for these changes and the influence of different urban processes. In addition to an understanding of changes over time, students will also develop an understanding of the spatial variations in the different urban processes and how land use zones have developed in specific areas of the city.

- More able students might want to construct a population pyramid for the whole city (or different wards within the city) and discuss the potential impacts of this structure.
- Less able students could plot population data on a graph and annotate it with text and/or photos to show how their chosen city has changed over time.

Key concepts and processes

The sequence of urbanisation, suburbanisation, counter-urbanisation and re-urbanisation processes do not necessarily take place in this order or take place separately. In many UK cities, after the initial urbanisation process, the other three processes have taken place at similar times. Students should be able to identify when each process took place and the reason(s) for this. In particular, the reasons for the population growth that will have been a distinctive feature of the city's initial urbanisation need to be understood. This may include reasons linked to a growth in the natural increase (due to falling death rates as a result of improving medical care, diet and sanitation) but will also include reasons linked to an influx of migrants from other areas of the UK and the wider world. The reasons for national migration (rural-to-urban or urban-to-urban) often include education, employment and retirement. The reasons for international migration might also include these, but also other reasons, such as escaping conflict in the country of origin.

Finally, students study the positive and negative impacts of national and international migration. These impacts will vary across the city and students will need to be able to demonstrate an understanding of how age structure, ethnicity, housing and services change over time and are different in different parts of the city.

Guidance on teaching

- The distinctive land use zones (detailed in Key idea 4.3b) that have developed as a result of the different urban processes need to be studied using satellite images.
- Use population pyramids to demonstrate the impacts of migration on the city's age structure. Also, use GIS and choropleth maps to provide information about how ethnicity, housing and services vary across the city.

Example strategies for teaching include:

- flash card activity or 'taboo'-style games to learn the definitions of key words
- creating an urban 'transect' of the city by using satellite images, GIS and/or maps and photographs to investigate how land use changes across the city
- using Census data from 2011 to investigate the nature and impact of national migration for different wards in the city. This activity can provide a lead into the detailed content of Key idea 4.5.a.

Lesson 5: Globalisation and economic change create challenges for the chosen UK city that require long-term solutions (1)

Overview

Beginning with Key idea 4.5a, data from the 2011 Census is used to provide an overview of the key population characteristics and links made to the growth or decline of the city's population. This is followed by a study of the reasons for this population change, including the causes of deindustrialisation, and how this and broader economic change has increased inequality and variations in the quality of life across the chosen city. (Key ideas 4.5b and 4.5c).

- More able students might want to evaluate the extent to which different factors (such as in-migration and deindustrialisation) have affected the city.
- Less able students should be able to describe the characteristics of different parts of the city and offer reasons why variations exist.

Key concepts and processes

Students need to know and understand clearly:

- the key characteristics of the city's population taken from the 2011 Census (Integrated skill 4). There is a huge amount of Census data linked to population, so only the key measures need to be considered for an overview. These include:
  - number of males vs females in each age group category; this information could lead to a discussion about dependency ratios and youthful/ageing populations
  - population densities in different parts of the city – and the possible consequences of this
  - recent trends in population growth or decline; links could be made with the previous lesson at this point (reasons for population change and the degree that this has impacted on different parts of the city)
- the causes of deindustrialisation and their impacts on the chosen city. The specific information here (i.e. names of companies that have closed down) will depend on the chosen case study, but the generic causes will be similar and will include the processes of de-centralisation and globalisation: the growing interdependency between countries as a result of transport (e.g. containers and motorway networks) and technology developments, which facilitated the process of de-centralisation (e.g. the internet)
- the impacts of deindustrialisation and economic change on the chosen city; including increasing inequality/differences in quality of life in different parts of the city (due to unemployment, discrimination, pressure on services and environmental degradation); whilst many of these are linked to deindustrialisation, they can also be a result of, or exacerbated by, issues such migration and/or natural increase – topics previously addressed in Key idea 4.4b.

Guidance on teaching

The causes and impacts of deindustrialisation and the concept of globalisation has appeared on several of the legacy GCSE Geography specifications; however, the concept of spatial variation in quality of life (including deprivation) will be new to many centres. One common misconception about quality of life is that it is the same across a city and, if deindustrialisation takes place, the entire city will suffer.

One way of teaching this topic is to use the 'index of multiple deprivation' and to investigate how this changes across the chosen city.

By using a GIS map like that in Figure 2, students will begin to understand how inequality/quality of life can vary in different parts of the city; prompting the discussion as to why these variations exist.
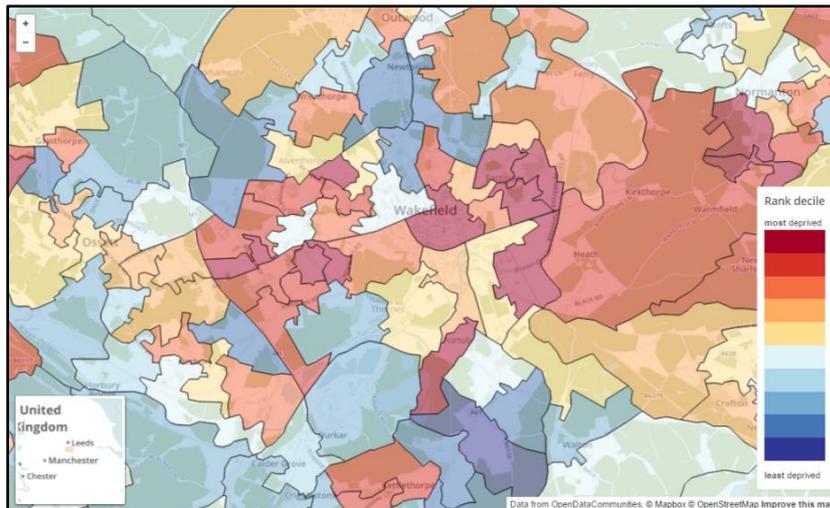
Figure 2
Source: http://apps.opendatacommunities.org/showcase/deprivation

Example strategies for teaching include:

- using a GIS map from one of the suggested websites, describe the locations of the most and the least deprived areas. Carry out independent research into why some areas are more deprived than others
- card-sorting or a 'mystery' activity to investigate the causes of deindustrialisation
- constructing and annotating population pyramids showing the population structure for i) the UK, ii) the city and iii) two contrasting wards within the city.

Lesson 6: Globalisation and economic change create challenges for the chosen UK city that require long-term solutions (2)

Overview

The sixth lesson, and final lesson for this case study, could tackle Key ideas 4.5d and 4.5e; with students examining the causes and impacts of changes in retailing. In particular, students will need to be familiar with the negative impacts that edge- and out-of-town shopping has had on the CBD of their chosen city.

The second part of the lesson could consider the different strategies that have been used to improve the quality of life for residents of the chosen city.

- More able students might like to consider the extent to which the CBD of their chosen city has 'fought back' in response to these changes in retailing.
- Less able students might use past and present photographs/images of retail provision and attempt to put them in chronological order; adding comments on the nature of the provision and the identifiable changes from one to another.

Key concepts and processes

Students need to be made aware of changes in shopping habits; in particular, the reasons for the growth of shopping malls, edge- and out-of-town shopping centres, internet shopping and local collection points, and the impacts these have had on city centres. The sustainable management of the chosen city also needs to be considered

(including transport, waste, housing and service provision) and an assessment of the effectiveness of these strategies needs to be made.

Guidance on teaching

- When teaching about how the CBD has changed or is changing, it is useful to begin with a model of the CBD like that in Figure 3.
- Once students have an understanding of the different types of activity that takes place in a CBD, they can then explore the reasons for recent changes; for example, the development of a 'Discard Zone'. Links between the de-centralisation of retailing are likely to be made with the development and growth of a nearby edge- and out-of-town shopping centre.
- In addition to the challenges facing CBDs as they face competition from the internet and out of town shopping centres, UK cities also face the challenge of becoming more **sustainable**. There are a number of ways of attempting to achieve sustainability, and these include recycling, green transport and the construction of energy-efficient homes. Students need to make the link between how approaches to sustainable management in their chosen city could help to reduce its ecological footprint.
- Within the delivery of Key idea 4.5e, students are required to calculate the ecological footprint of people in the city, and to compare it to other locations (Integrated skill 5). Information about the ecological footprint for cities in the UK is widely available on the internet; for example, Leeds City Council have produced a document with this information in, which can be found here.
- Make students aware that ecological footprint data might just be the average for the area, and that variations exist on a smaller scale; this website provides some interesting information about how the ecological footprint varies across London.
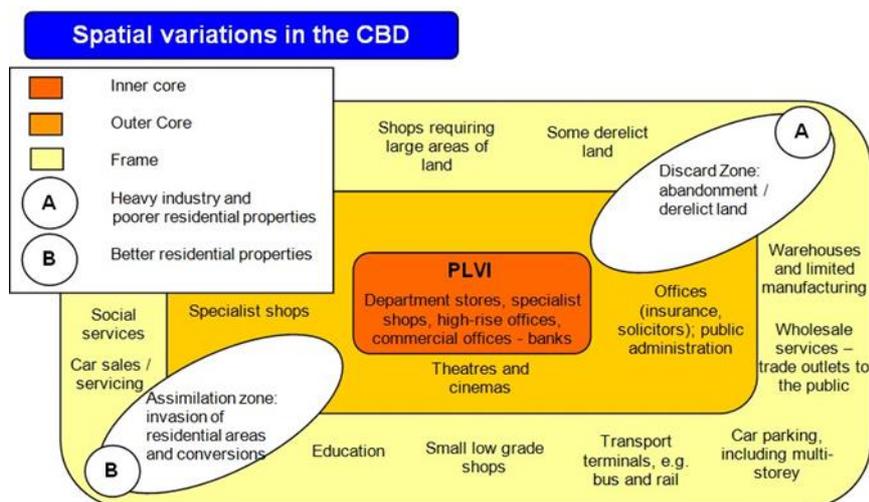
Figure 3
Source: Royal Geographical Society

Example strategies for teaching include:

- using an outline eco-footprint calculator and compare their own eco-footprint with the eco-footprint of their chosen city
- annotating a copy of the CBD model (see above) to assess the extent to which it fits their chosen city
- carrying out research into what the local council for the chosen city is doing to improve the quality of life for people who live in the city.

Key vocabulary for EQ2

Case atudy of a major UK city		
Site	Ethnicity	Terraced houses
Situation	Census	Semi-detached houses
Connectivity	Deindustrialisation	Detached houses
Central Business District (CBD)	Globalisation	Owner-occupied
Inner city	De-centralisation	Social priority housing
Suburb	Inequality	Recreational land
Urban-rural fringe	Retailing	Green belt land
Settlement function	Out-of-town shopping	Emigration
Urbanisation	Internet shopping	Immigration
Suburbanisation	Sustainability	Index of multiple deprivation (IMD)
Counter-urbanisation	Quality of life	Zone of discard
Re-urbanisation	Affordable housing	Zone of assimilation
National migration	Energy-efficient housing	Technological advances
International migration	Residential	
Public buildings		

Further reading

Sources of further reading and research will depend on the chosen UK city, but may include some of the following generic sources:

- UKCities provides population size data – a good starting point when selecting the chosen case study.
- The Centre for Cities website provides some up to date information and data for a number of UK cities.
- The Office for National Statistics has a database covering a very wide range of Census data.
- The use of Ordnance Survey maps, Google Maps and Google Street View all offer a good starting point for the case study – especially if a visit is not possible.
- BBC GCSE Bitesize provides some clear information about 'site' and 'situation'.
- The Planning Resource website provides GIS maps and data sets for IMD information.
- This Government website also provides extensive geographical data for UK cities.
- The World Wildlife Fund have produced a document that provides data on, and compares, the ecological footprints of UK cities.
- The Geoworld website provides some great ideas about different thinking skills activities for Geography teachers, such as 'Taboo'.
- This website has an article from February 2016 that more able candidates might want to use to explore how their chosen city compares to some of the high and low ranked cities in the Mercer Quality of Life ranking.

Enquiry Question 3: Case study of a major city in a developing or an emerging country

Teaching approach over six hours

Lesson 1 (1 hr)	The context of the chosen developing country or emerging country city influences its functions and structure (1)
Lesson 2 (1 hr)	The context of the chosen developing country or emerging country city influences its functions and structure (2)
Lesson 3 (1 hr)	The character of the chosen developing country or emerging country city is influenced by its fast rate of growth (1)
Lesson 4 (1 hr)	The character of the chosen developing country or emerging country city is influenced by its fast rate of growth (2)
Lesson 5 (1 hr)	Rapid growth within the chosen developing/emerging country city results in a number of challenges that need to be managed (1)
Lesson 6 (1 hr)	Rapid growth within the chosen developing/emerging country city results in a number of challenges that need to be managed (2)

Lessons 1 and 2: The context of the chosen developing country or emerging country city influences its functions and structure

Overview

The term, 'developing country <u>or</u> emerging country' includes any country with a Low, Medium or High HDI score (see further reading). The first two lessons (Key 4.6) follow a very similar pattern to the first two lessons of the UK case study by exploring the site, situation and connectivity of the chosen case study.
* More able students could compare the land use of the chosen developing/emerging country case study with their chosen UK city case study.
* Less able students may wish to annotate a sketch map of the chosen city to explain reasons for its site and/or land use.
Similar approaches to those taken in 4.3 (mention above – for the UK city case study) are equally relevant for this Key idea.

Lessons 3 and 4: The character of the chosen developing country or emerging country city is influenced by its fast rate of growth

Overview

This first lesson focuses on Key ideas 4.7a and 4.7b – the patterns, causes and impacts of population growth over time in the chosen city. These Key ideas, to a certain extent, mirror Key ideas 4.4b and 4.5a/b for the UK city case study. The second lesson also bears some similarities with Key idea 4.5c (UK city case study), where students are required to consider the impacts of this population growth, again, in terms of increasing inequality and difference in quality of life.

* More able students could compare the impacts of rapid urbanisation on different parts of the city.
* Less able students may want to annotate a map of the chosen city with some basic facts about how the area changed as a result of rapid urbanisation.

Key concepts and processes

The reasons for past and present trends in population growth are likely to include:
- natural increase (the gap between the birth rate and the death rate is getting bigger) – and in particular the reasons why the death rate has fallen
- national migration – this most likely population flow will be rural to urban migration, and students must be aware of the specific 'push' and 'pull' factors involved. However, students also need to be aware of population flows *from* the city to other parts of the country and the reasons for this. The generic reasons for national and international migration will have been dealt with earlier, during the UK city case study
- international migration – the movement of people from other countries into the chosen city, possibly linked to the process of de-centralisation and economic investment
- economic investment and growth – which might include the growth in foreign investment into the city and the impact that this had on the rate of urban to rural migration.

The impacts of this population growth on different parts of the city are likely to include the following:
- Age structure – this could be studied through the interpretation of a series of population pyramids (over time, or for different parts of the city). Opportunities to make links between different processes; for example, in-migration and a changing dependency-ration should be made.
- Ethnicity – students should be able to describe how ethnicity varies in different parts of the chosen city, and use specific facts and figures to support this.
- Housing and services – in particular the pressures placed on the existing public services and housing stock and the issues surrounding the development of squatter settlements; immigrants from HICs often live in more expensive homes in the city centre close to the main financial and leisure services.
- Increasing inequality and differences in quality of life – areas of extreme wealth versus poverty and the reasons for this. Growing competition for jobs and the consequential rise of the informal economy will be evident in some parts of the chosen city.

Guidance on teaching

- When learning about population growth, students should be able to draw a line graph to show population growth over time in their chosen city. Once this has been completed, students will have the opportunity to use the required mathematics and statistics skills to interpret the graph by calculating rates of change and percentage growth (see Integrated skill 1).
- When teaching about the impacts of population growth in different parts of the city, students need to be able to use GIS/satellite images, historic images and maps to investigate spatial differences (see Integrated skill 6).
- Though not a requirement, it may aid understanding if comparisons are made between the past and present trends in both of the chosen cities, and whether the explanation for these trends are similar or different.

Example strategies for teaching include:

- presenting (population growth) data using GIS and geographical techniques. Students should be able to assess the effectiveness of different ways of presenting data and to interpret different forms of data presentation
- incorporate different generic mathematics and statistics skills (listed on page 33 of the specification) to interpret data; for example, by extracting or manipulating data. The Math Goodies website provides some really clear, step-by-step support for students to help them with these skills – for example, the calculation of percentage growth is explained here. Also, the 'Guide to Maths for Geographers' (Pearson Edexcel) provides clear information about all of the skills that students are expected to be able to perform
- completion and interpretation of a population pyramids for the chosen city and other cities in the chosen country. Comparisons could be made with the chosen UK city
- using the internet to research what daily life is like for the residents of the chosen city; the use of newspaper websites and blogs can be useful – but be aware of bias. The DVD 'Challenges of Urbanisation: Inequalities in Bangalore' (available here) could prove useful for students choosing to study this particular city
- using a photograph and the 5W's+H (to stimulate geographical questions), to shown how the rich and poor often live side by side in the city (albeit separated by a road, fence or wall) – something that is not seen in UK cities and a misconception held by many students.

Lessons 5 and 6: Rapid growth continuity within the chosen developing/emerging country city results in a number of challenges that need to be managed

Overview

Lesson 5 considers the different impacts of rapid urbanisation (Key idea 4.8a), followed by the ways these impacts are being managed in Lesson 6. Students will need to be able to evaluate the different approaches used (bottom-up vs top-down) and understand the role of government policies in the management of the city (Key ideas 4.8b and 4.8c).

- More able students could compare the challenges facing their chosen UK city with those facing their chosen developing/emerging country case study.
- Less able students may want to rank the impacts of rapid urbanisation and explain why some impacts are more serious than others.

Key concepts and processes

Students need to be aware that rapid urbanisation is not necessarily the cause of many problems in urban areas, but does have a part to play in making these impacts worse. The impacts of rapid urbanisation are often quite similar, regardless of the chosen case study, and will usually include:
- housing shortages and the growth of squatter settlements: students will need to know the reasons for the location of squatter settlements within their chosen city and the problems that are associated with these (such as a lack of electricity, the spread of disease, insecurity of tenure, poor healthcare/ well-being and sewage disposal)

- under-employment and unemployment: the use if data (e.g. population growth rate vs percentage unemployed) could be used to look at trends over time. The informal economy is often evident in many parts of the city – which is a challenge for the workers (in terms of job security) and the government (who struggle to collect taxes from those working illegally)
- pollution: students could investigate the causes of pollution, such as a rise in the number of cars on the road or unregulated industrial growth. Some cities (e.g. Mexico City) are prone to air pollution as a result of their physical geography; many developing/emerging country cities also suffer from waste pollution due to inadequate infrastructure – something that may exacerbate water supply problems (see link in 'further reading' below)
- strain on services and existing infrastructure: in many developing/emerging cities, the provision of clean drinking water has been a huge challenge; the lack of rainfall, underground aquifers and a rapidly increasing population has increased the strain on water supply.

Approaches to tackling these problems can be categorised into:
- bottom-up approaches: usually coordinated by the local community, such as small-scale home improvement projects
- top-down approaches: usually coordinated by the government, such as a large-scale housing project in one part of the city.

The use of specific examples of bottom-up/top-down approaches will be useful to help evaluate how effectively the challenges of rapid urbanisation are being tackled.

The effectiveness of each approach needs to be evaluated; this will include a consideration of the advantages and disadvantages of the approach, with the student arriving at a judgement based upon the evidence that they have been studying.

Finally, it is important for students to understand what government policies are in place and how these have (or have not) improved the quality of life (social, economic and environmental).

Guidance on teaching

- Begin Lesson 5 with a short video clip showing the growth of urban areas around the world since 1950. The BBC clip here visualises the location of this growth.
- Rapid urbanisation and squatter settlements are familiar topics, both at KS3 and GCSE; however, the approaches and government policies involved in the management of these areas will be new to many centres. When considering the different strategies that are being used in the chosen city, it is important to link the actions to how quality of life is improved. In doing this, students should be encouraged not to make generalised statements about the improvements, but should focus on different groups of people who live in the city and show some awareness of their differing needs. Exploring the outcomes of government policies from the viewpoint of different stakeholders/interested parties might a way of assessing how far they have improved quality of life.
- When teaching the effects of rapid growth, use a variety of quantitative and qualitative information; this can be structured in a way that allows students to judge the scale of variations in quality of life (Integrated skill 7).

Example strategies for teaching include:

- the use of photographs, GIS, newspaper articles and video clips to investigate the different approaches used to solve urban challenges
- the characteristics of bottom-up/top-down approaches can be summarised clearly by using a Venn diagram – and this can then be used to help structure an extended piece of writing about the effectiveness of these different approaches
- group research task into one strategy used in their chosen city; this could be followed by the production of a summary display that is shared with the rest of the class
- using visual stimuli, such as the map in Figure 4, to introduce an unfamiliar concept and initiate small group discussions, possibly starting with a 'think-pair-share' activity

Figure 4

- making use of the Specimen Assessment Materials to monitor and assess progress of students.

Key vocabulary for EQ3

Case study of a major city in a developing country or an emerging country		
Site	Public buildings	Industrialisation
Situation	Push factors	Disamenity zone
Connectivity	Pull factors	Housing shortages
Central Business District (CBD)	Rural to urban migration	Under-employment
	National migration	Pollution
Inner city	International migration	Inadequate services
Suburb	Top-down approaches	Infrastructure

Urban-rural fringe	Bottom-up approaches	Quantitative information
Residential	Traffic congestion	Qualitative information
Squatter settlement	Unemployment	Inequality
Land use	Informal economy	Quality of life
Housing segregation	Aquifer	Poverty

Further reading

Sources of further reading and research will depend on the chosen UK city, but may include some of the following generic sources:

- A useful introduction to urbanisation is the PwC video clip on urbanisation.
- The United Nations Development Programme website provides the HDI scores for every country and categorises them as Low, Medium, High or Very High Human Development by HDI.
- The BBC GCSE Bitesize website provides information about urban land use models in developing/emerging countries.
- The Wonderful Engineering website is a good place to start looking for images that show inequality in developing/emerging cities.
- The Allianz website provides some interesting information about predicted trends in the growth of megacities.
- This BBC news article has information about the living conditions in squatter settlements and the predicted future growth of populations living in such areas.
- A recent article here explores the geography of car ownership in Mexico City – how the annual rise in car ownership over the last 20 years has had a major impact on the environment.