Geography

GCSE 2012

Geography B

Schemes of Work and
Lesson Plans

Version 1
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OCR

Contents

Introduction

Background

Following re-accreditation from Ofqual, a revised specification is available here for first teaching from September 2012.

In order to help you plan effectively for the implementation of the new specification we have produced these Schemes of Work and Sample Lesson Plans for Geography B. These Support Materials are designed for guidance only and play a secondary role to the Specification.

Our Ethos

OCR involves teachers in the development of new support materials to capture current teaching practices tailored to our new specifications. These support materials are designed to inspire teachers and facilitate different ideas and teaching practices.

Each Scheme of Work and set of sample Lesson Plans is provided in Word format – so that you can use it as a foundation to build upon and amend the content to suit your teaching style and students' needs.

The Scheme of Work and sample Lesson plans provide examples of how to teach this unit and the teaching hours are suggestions only. Some or all of it may be applicable to your teaching.

The Specification is the document on which assessment is based and specifies what content and skills need to be covered in delivering the course. At all times, therefore, this Support Material booklet should be read in conjunction with the Specification. If clarification on a particular point is sought then that clarification should be found in the Specification itself.

Suggested teaching time: 30 hours

TOPIC OUTLINE	SUGGESTED TEACHING AND HOMEWORK ACTIVITIES	SUGGESTED RESOURCES	POINTS TO NOTE
1. How is global population changing?	• Find a population clock on the internet and run it during the lesson. • Draw a line graph to show total world population change from c. 1650 to 2010.	• http://www.worldometers.info/world-population/ • Introduction to Population or Population Starter http://www.gatm.org.uk/?cat=10 • www.geographyalltheway.com • OCR GCSE Geography B Student Book	• Introduction to Population and Population Starter are movies from 'Geography at the Movies' a site with free video resources for geography teachers. Both are short and either would be a useful starter. Several of these movies are included in this SOW. • Check if existing textbooks cover the rate of world population growth. You may just need to update the statistics. • If you have a whiteboard check out Boardworks Interactive resources. The one mentioned would be good background, say in Year 9. The resources can be used as PowerPoints. www.boardworks.co.uk • A graph and worksheet of World Global Population Growth can be downloaded from www.geographyalltheway.com a site with a wealth on material, check it out. • Boardworks have a KS3 unit on Population with units on People Everywhere and Dense and Sparse Populations.

TOPIC OUTLINE	SUGGESTED TEACHING AND HOMEWORK ACTIVITIES	SUGGESTED RESOURCES	POINTS TO NOTE
2. Why is global population changing?	• See the sample lesson at the end of this Scheme of Work, it does not use IT although a lesson on this topic could.	• The Population Reference Bureau's 2012 World Population Data Sheet can be downloaded from: http://www.prb.org/Publications/Datasheets/2012/world-population-data-sheet.aspx • http://www.advisory-unit.org.uk • OCR GCSE Geography B Student Book	• The Population Reference Bureau's site has many data handling options, maps, graphs www.prb.org/datafinder.aspx# and suggested activities www.prb.org/Educators/TeachersGuides/FactsinFocus.aspx
3. How and why have birth and death rates changed over time? 4. What are the effects of these changes?	• Discussion of the ways of collecting information about population in the UK: birth, marriage and death certificates, census etc. Reasons why censuses may not be very reliable in the UK in the past, and in some countries in the world today. • Draw and label an outline of the Demographic Transition Model (DTM). • Apply the DTM to an LEDC e.g. Gambia and an MEDC e.g. England. • Population Change Living Graphs exercise.	• OCR GCSE Geography B Student Book • www.geographyalltheway.com • www.roadstoequality.org/documents/err%20Living%20Graphs.doc	• Some students may have family members with an interest in family history. This could be a starting point to the discussion about collecting information about population. It could also be a source of information about family size, migration, etc. • Check out the World Population Bureau's lesson plan on DTM for suitability. Also other lesson plans related to this SOW at: http://www.prb.org/Educators/LessonPlans/2005/MakingPopulationRealNewLessonPlansandClassroomActivities.aspx • For changes over time for different countries see http://www.gapminder.org • The Living Graphs exercise consists of a lesson plan and worksheets that can be downloaded and printed.

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5. How and why does the age and gender structure of populations vary?	• Discuss why it is important to know more than just the total population of a country. • Study of various population pyramids. Get students to understand how you can 'have a conversation' with a population pyramid. How a population pyramid can tell them about a country's birth rate, death rate, infant mortality, life expectancy, gender balance, migration and dependency. • Half the class researches how the population pyramid of an LEDC country changes over time. The other half researches an MEDC country. Each student produces a PowerPoint Presentation. The best ones are shared with the rest of the class.	• http://www.geographyalltheway.com • http://geographyfieldwork.com/PopulationStructure.htm • http://www.bbc.co.uk/scotland/education/geog/population/pyramid.shtml • www.geointeractive.co.uk • OCR GCSE Geography B Student Book	• Google 'population pyramids' to find more sites and choose the most suitable ones. The U.S. Census Bureau International Data base http://www.census.gov/ipc/www/idb/pyramids.html has a wealth of information about most countries and allows population pyramids to be drawn. It is a suitable source of data for the suggested research project. • DVDs (see below) Youthful Populations and Ageing Populations have data and instructions for drawing population pyramids for Gambia and the UK at three different dates. Also work on dependency ratios. • There are also useful resources for this and other topics at: www.geointeractive.co.uk
6. Is there a relationship between the population structure and the level of economic development of a country?	• Recap of work on DTM model and population pyramids showing how countries at different stages of the DTM model have different population structures. • Discuss how the dependency ratio in a country can be worked out from a population pyramid (number of children under 15 plus number of adults over 65 multiplied by 100 divided by number of adults between 16 and 64). Discuss the assumptions the dependency ratio	• DTM http://www.gatm.org.uk/geographyatthemovies/population.html • OCR GCSE Geography B Student Book	• DTM, 'Geography at the Movies' could prove a useful starter, reasons why birth and death rates change at each stage, with a quiz at the end. • This topic builds on work completed in previous lessons.

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	appears to be based on. • Describe how sketch pyramids can be drawn to represent the four stages of the DTM. Hypothesise and draw a fifth stage. • Introduce the ideas behind the Rostow Model. Students illustrate the ideas with a diagram. • Students write a detailed, illustrated report describing and explaining how the population structure of a country changes shape as it becomes more economically developed.		
7. Are some countries overpopulated? 8. What are the causes of overpopulation? 9. What are the effects of overpopulation on people and the environment?	• Gambia's population will double in less than 30 years. • DVD Youthful Populations has teachers' notes, student activities, a PowerPoint presentation, resources etc. building up a case study by completing a fact file, drawing population pyramids at different dates (or accessing on line), decision making, note taking. Work for one to two lessons. The DVD also covers strategies for population management (see below).	• Youthful Populations: An African Case Study (The Gambia) (Pumpkin duration: 30 mins) • OCR GCSE Geography B Student Book	• Pumpkin www.channelle.co.uk/Pumpkin/index.html Pumpkin work closely with the Geographical Association, the Ordnance Survey and the Academy for Sustainable Communities to ensure their products are both relevant to Awarding Body specifications and are of high quality. DVDs contain a documentary, teachers' notes, lesson plans, photocopiable thinking skills activities and further background case study information. Each DVD can provide work for two or three lessons. http://www.gapminder.org

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10. What are the causes of slow, zero or negative population growth? 11. What effects do these rates have on people and the environment?	• The Census for 2001 showed that for the first time there were more people over the age of 60 than those under 16 in the UK. • DVD Ageing Populations has teachers' notes, student activities, a PowerPoint presentation, resources etc. building up a case study by completing sorting exercise on the causes, completing a matrix of positive and negative impacts, investigating the needs and implications.	• Ageing Populations http://www.gatm.org.uk/geographyatthemovies/population.html • Ageing Populations: A European Case Study (UK and Devon) (Pumpkin Duration: 30 mins) • OCR GCSE Geography B Student Book	• Ageing Populations (Geography at the Movies) is a possible lesson starter. • Another Pumpkin resource, check out discounts for ordering a number of their DVDs.
12. Are some strategies for population management more sustainable than others?	• Explore, by drawing stick people, the consequences of maintaining the same family size through three generations of three families. Couple A has one child, couple B has two children, couple C has three children. • Discuss a definition and the goals of family planning. • Use the 'Parenthood Policies in Europe' article to decide whether European countries have pro-natalist or 'laissez faire' population policies. • Divide the class into three groups to research and write newspaper articles based on the following questions for enquiry: • How has China reduced its rate of population increase since 1950? • In 1930, Thailand was at Stage 1 of the DTM. In 2000 it was at Stage 4. What	• Parenthood Policies in Europe see http://news.bbc.co.uk/1/hi/world/europe/4837422.stm • Ageing Populations: A European Case Study (UK and Devon) (Pumpkin Duration: 30 mins) • Youthful Populations: An African Case Study (The Gambia) (Pumpkin duration: 30 mins) • Population China introduction to population issues, and One Child Law and China: Population Policy: are all 'Geography at the Movies' • http://www.gatm.org.uk/geographyatthemovies/population.html • OCR GCSE Geography B Student Book	• Look for up to date information on population pressures at http://www.peopleandplanet.net/?lid=25990&section=33&topic=44 • If you have the Gambia and Devon videos you can use them to focus on strategies for population management in Gambia and the UK. • The Thai Government encouraged couples to have large families before 1960 to increase the workforce. Post 1960 it has followed an antinatalist policy • Students need to learn the details of a case study that illustrates strategies used to influence natural population change within a country. They must be able to comment sensibly on the sustainability of different strategies for population management.

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	has made this possible? • What is being done to prevent a population explosion in Gambia? • Why has Singapore had anti-natalist and pro-natalist policies since 1960? • Share the finished newspaper articles and draw up a table to summarise the social, political, economic and environmental characteristics of a sustainable population management policy. Include examples.		
13. What is migration? 14. Why do people migrate?	• Brainstorm definitions of migration, immigration, emigration, international, internal. • DVD Population Change: Migration to the UK has teachers' notes, student activities include an 'active watching' worksheet, a costs and benefits of migration exercise, true/false exercise refugees and decision making exercise about asylum seekers. • Students consider and list push and pull factors related to migration and then underline, using different colours, economic, social, political and environmental reasons for migration.	• Population Change: Causes, Impacts and Management of Migration (UK) (Pumpkin in consultation with the Geographical Association: Duration: 40 mins) • Information about refugees http://www.mercycorps.org/?source=79700&gclid=CPf7n_2EzrICFSTHtAod1QwAuA • OCR GCSE Geography B Student Book	• The Pumpkin resource is a good introduction to migration as it offers strategies for dealing with what often proves a sensitive issue in the classroom. In June 2007 and January 2008 OCR GCSE examination questions featuring migrants triggered negative comments about foreigners in general about immigration levels in particular. The DVD goes on to explore the issue through the experiences and lives of migrants to the UK and their families.

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15. Does international migration have a pattern?	- Recap of how present day migrants can broadly be divided into economic migrants and refugees. The problems of defining a migrant. - Plot routes on a world map. Use coloured key for type e.g. voluntary forced etc. - Students choose one international migration and describe the reasons why people moved (causes), the consequences (political, economic, social and environmental effects on the country of origin and the destination country) and the management e.g. Poles into the UK, Turks into Germany, Mexicans into USA.	- International Migration http://www.gatm.org.uk/geographyatthemovies/population.html - Blank world map - http://www.telegraph.co.uk/culture/3674543/Telegraph-pick-The-Poles-Are-Coming-BBC2.html you can also download The Poles are Coming from Youtube - http://www.youtube.com/playlist?list=PLD80EB68F4CF646AE - Migration: Mexico to USA www.geographyalltheway.com - OCR GCSE Geography B Student Book	- International Migration is possible starter from 'Geography at the Movies'. - Google world maps, a number of outline world maps are available on the web. - Poles into the UK follows on from the newspaper article and Panorama programme. - For up to date information on migration go to: http://news.bbc.co.uk/1/hi/talking_point/special/migration - Geography All The Way is a 'mystery'. There has been a fight in an American bar involving the murder of an illegal Mexican migrant. Text sources and a Google Earth overlay are used to solve the crime. - Students need to learn the details of a case study of international migration that illustrates the causes, consequences and management.

Sample GCSE Lesson Plan

OCR Geography GCSE B

How is global population changing?

OCR recognises that the teaching of this qualification above will vary greatly from school to school and from teacher to teacher. With that in mind this lesson plan is offered as a possible approach but will be subject to modifications by the individual teacher.

Lesson length is assumed to be **one hour**.

Learning Objectives for the Lesson

By the end of lesson you should **KNOW**	• that population is growing faster in some parts of the world than in others
By the end of the lesson you should **UNDERSTAND**	• that countries with the highest population growth rates will have a rapidly increasing population.
By the end of the lesson you should **BE ABLE TO**	• shade and name on a world map countries that have large and small population increases. • describe how the countries with the fastest rates of growth are in some of the poorest parts of the world.

Recap of Previous Experience and Prior Knowledge

Remind students about how world population has grown rapidly from c 500 million in 1650 to over 7 billion today. These figures are the average for many different countries. They conceal large differences, there are different population growth rates in different places.

Resources

Teacher Resources
- Source of starter facts: http://news.bbc.co.uk/1/hi/sci/tech/411162.stm
- The Population Reference Bureau's 2012 World Population Data Sheet http://www.prb.org/pdf12/2012-population-data-sheet_eng.pdf
- Blank World Map showing country boundaries e.g. Eckert projection: http://english.freemap.jp/world_e/4.html

Students will need:
- Relevant pages from 'The Population Reference Bureau's 2012 World Population Data Sheet' these will depend on exactly what the teacher wants them to do, which will be related to ability and previous learning experiences at KS3 and KS4.
- Blank World Map.
- Instructions on board or worksheet.

Content

Time	Content
5-10 minutes - STARTER:	Monday 9 August 1999 is thought to have been the date when the six billionth person entered the world. If we look back to when the similar 'landmark' births occurred, we find that the other five were born in 1800, 1930, 1960, 1975 and 1987. Are they alive today? (Answer: 6 billionth = **12**; 5 billionth = **25**; 4 billionth = **37**; 3 billionth = **52**; 2 billionth = **82** years old - with the exception of 1 billionth = **212**… they may all be alive!)
15 minutes	From the Population Reference Bureau's 2012 World Population Data Sheet: • Students choose 20 or 30 countries (however many is appropriate for the ability). Please include a mixture of LEDCs and MEDCs and include the UK, China and Gambia, as this will be useful later on! • Tabulate country name, 2012 population, birth rate, death rate, natural increase, and projected population change 2012 to 2050.
10 minutes	• Divide the countries into four or five categories based on the rate of natural increase. (Countries with an annual population growth of 3% or more will double their population in 24 years.) Lightly shade over the data in the table using four of five different colours.
15 minutes	• Plot the location of the countries on a blank map and shade with the same colour as was used in the table, add a title and a key.
10 minutes - PLENARY	• Students feed back to the class progress they have made and details of any pattern appearing on their map. • Students check they have written down when each of the seventh billionth people were born.
Homework	• Students complete classwork. • Students describe the distribution of countries with the smallest increases (e.g. Europe: UK) and largest increases (e.g. Africa: Gambia, Asia: China) of population using the terms LEDC and MEDC. • Students suggest when and where the eighth billionth person will be born. • Students tabulate world population doubling periods.
Extension Work	• Plot the life expectancy and GNI PPP (gross national income in purchasing power parity) per capita of the countries on a scattergraph. Describe what the completed graph shows. As this will work best on log/normal graph paper, a pre-plotted graph could be given to students. • Work out the Spearman's Rank Correlation coefficient of the life expectancy and GNI PPP of the countries. What does the result mean?