

GEOGRAPHY TIPS

POPULATION CONCEPTS (AS 91008)

Demonstrate geographic understanding of population concepts

**WHAT IS THIS ASSESSMENT ABOUT?**

The aim of this standard is to introduce students to some basic cultural geography through a study of given population concepts. It is important that students use case studies to back up their understanding of these concepts. It is linked to AO 1 and 2 at Level 6 or:

*-understand that natural and cultural environments have particular characteristics and how environments are shaped by processes that create spatial patterns.*

*-understand how people interact with natural and cultural environments and that this interaction has consequences.*

**HOW MANY CASE STUDIES SHOULD BE USED?**

The standard asks for evidence from countries and/or regions. Since this is given in the plural it means that 2 is a minimum so that students have a broader understanding than just one area. There are several ways this can be interpreted:

* A study of 2 countries – for example NZ and India.
* A study of 2 countries within a continental region – eg China and India in SE Asia.
* A study of one country and 2 regions within that country that are at extremes
* Using different case studies for each aspect

While the latter is ‘good geography’ it does get complex for students to apply concepts to several countries and to answer in the depth required. Understanding the reasons for population distribution requires an understanding of the country first and it is often easier to scaffold answers using one main country only. There are several aspects in which a study of many examples also becomes necessary – for example when discussing how population growth can be controlled it is useful to look at what has happened in China, India and Germany. This means the best approach is to use one main country with 2 main regions within it and to branch out to other examples in some cases. Ensure students can name the country and 2 regions for assessment.

**WHICH CASE STUDIES TO CHOOSE**

The choice of case study will depend on many factors. Getting resource material will count as a major decision maker but do also consider student interest. New Zealand remains a popular choice especially if you are using an overseas extreme natural event. Other popular choices are India, China, Australia and the USA. If you do concentrate on just one country then pick 2 extremes as regions. The most obvious is an area where the population is dense and an area where the population is sparse.

It is important to use up to date information on this topic. Be wary of textbooks that are ‘old’ and try to update information from the internet. You can turn this into a useful exercise for students to see what have changed since the textbook was written.

**STARTING THE UNIT**

While it is not stated in the standard it has become common practice to include general information about world population in the standard. For this reason it is good practice to start this unit by:

* Identifying the present world population (the population clock is ideal for this. You can find this at: <http://www.worldometers.info/world-population/>
* Appreciating the world population distribution and where most occurs
* Appreciate where in the world change is happening at the fastest rate
* Making sure students are able to interpret cartoons, graphs and diagrams on population.

There are some great starters for the topic such as those produced by National Geographic as part of the 7 billion series.

<http://video.nationalgeographic.com/video/the-magazine/the-magazine-latest/ngm-7billion/>

<http://www.youtube.com/watch?v=4B2xOvKFFz4>

Since this standard will introduce students to many different concepts it is important that they keep a glossary of the words they come across. A mix and match of population terms is often a good way to begin the topic as it also shows what they already know and any misconceptions they may have like Life Expectancy being the age people die.

**ASPECTS TO BE COVERED**

What should be included in each aspect is as follows:

* **Population distribution: how and why the population is spread across the landscape**

In this section students need to describe a pattern of where people live in a case study (country or large continental region) and give reasons for this. The pattern needs to be described using geographic terms like linear, clustered, peripheral, dense and sparse. The reasons can be broken down into natural (climate, distance from sea, relief, soils, disease) and cultural (living standards, opportunity for jobs, trade, education, health, family, transport, colonialism). Students should be able to give at least 2 natural and 2 cultural reasons for the pattern.

**What students should be able to do:** Draw an annotated map of their case study identifying at least 2 patterns and annotating them to say why this pattern occurs. Writing a paragraph.

* **Population Diversity: composition of the population including ethnicity, age, sex.**

Students need to break down a population into different characteristics that will impact on future growth. The most important of these is ethnicity - especially in multi-cultural societies, (where the society is mono cultural use religion instead) and age-sex. Students need to be able to construct and interpret an age-sex pyramid. It is useful to discuss dependency rates for the interpretation and the concept of ageing and youthful populations. In each case the link between how these characteristics impact on future populations must be clear.

**What students should be able to do:** Students should be able to complete an age-sex pyramid and interpret one. They should be able to draw a % bar graph on ethnicity/ religion. They should write a paragraph on the characteristics of population diversity.

* **Migration and mobility of a population including both internal and external migration trends**

Students need to understand the difference between internal and external migration and the facets of the migration model. It is important to cover both internal and external migration so if your chosen case study does not have a lot of this type of migration use a different example for this. For both internal and external migration case study examples should be used for push and pull factors for source and destination as well as obstacles to movement. The effects of this migration on regions is also required (both at the source and destination) as well as an idea of the current trends. This is where using less developed countries and the reasons behind shanty town development can get interesting for students. It is also a good time to discuss refugee movement to students especially in relation to NZ.

**What students should be able to do:** Students should be able to complete a migration model using specifics for a case study/s for both internal and external migration. They should be able to write paragraphs on either internal or external migration.

* **Population change over time including: population totals, age-sex structure, natural increase.**

In this section students need to understand the reasons populations grow or decline. The analogy of the bath tub with 2 taps and a sinkhole is a great one to use here. See what the trends are in the case study country/s and which one is responsible for most change. Having established this then look at the 2 main reasons in more detail.

* Net Migration - often a recap of what covered in previous section
* Natural increase – reasons for a change in the birth rate and a change in the death rate.

While being able to look at these in depth for their case study/s it is useful to look at other worldwide examples of what has been done to decrease birth and death rates and the extent to which is has been successful and if not, why not.

This leads into the Demographic Transition model. Go over this and how it can be interpreted. Look at examples of countries at each stage. Ensure that the latest 5 stage DTM is used. Link this to the age-sex pyramids and how these then change as a country becomes more developed.

**What students should be able to do:** Do annotated diagrams for changes in the death/birth rate. Interpret the stages of the demographic transition model and where a country is based on given data. Identify the stage on the DTM of a country based on the age-sex pyramid. Write paragraphs that explain changes in the population totals in general.

* **Population Sustainability: capacity of the environment to support a population in the longer term**

This section looks to the future of a population and the issues that are likely to occur in order to make the population stable. Discuss what a stable population looks like. A discussion around the issues of a youthful population and their ability to feed, house them all and provide a decent standard of living. Look also at an ageing population and the issues this causes. Emphasize that many developing countries will have this problem in the future. Look also at the broader picture – at what level do we expect population numbers to peak, what countries are experiencing the most change and where are issues likely to be felt most? What are issues around food, water and resources? Look at the trend of urbanization. How can we cope with more people in cities? What does a sustainable city look like? This section opens up to a lot of discussion and you can capture student interest by getting them to come up with innovative solutions.

**What students should be able to do:** Draw annotated diagrams about issues with a youthful/ageing population. Write paragraphs about the earth’s ability to support a population in the future.

**OTHER FACTORS TO CONSIDER**

It is important to appreciate the difference between ‘describe’ (what it is like) and ‘explain’ (why it is like this). For Merit students must go beyond the describe to the explain. For example for population change over time they must not just say how the population has changed but give reasons for this. For excellence the descriptor word is ‘fully explain’ so in this case not only must they say why it is like this but it needs to be a good explanation that links causes with effects.

For Excellence students must also include geographic terminology and concepts in an answer. Most students at this level are likely to use those terms that make it an academic answer. It means using terms like ethnicity, infrastructure, urban and rural. In other words it reads well and seems organized.

Concepts are a vital part of this standard as they are in the title. The concepts will be within the question as they are the core of the assessment such as population distribution and population diversity. However, it is also good practice to apply the key concepts in geography to each unit. Get students to include this in the paragraphs they write where they both define the concept and put it into context of the answer. In this case several of them stand out as being easy in this respect such as:

**Process** – how migration occurs as a series of actions

**Environment –** the common cultural characteristics of a region with respect to population

**Pattern –** the location of the population in a case study

**Perspective**- How different nationalities view population control in different ways

I**nteraction** – How the natural environment effects the cultural environment or where people live

**Change** – How a population differs over time

**Sustainability** – How well a region can cope with its population into the future.

For higher grades students should also be encouraged to learn about 10 facts (names, dates, statistics) of each case study that they can use in an answer. For Excellence these need to be used throughout.

Students should be able to draw a recognizable map of their environments and the main characteristics from scratch. Turn this into a game by giving them a map to memorise and see what they can produce in a time limit.

Be wary of over dramatizing material in this topic – an issue frequently commented on by examiners. While it is easy to hook students into the topic by teaching about slums in South America and dowry murders in India you don’t want students to end up thinking every Indian is extremely poor and the killing of baby girls in China is commonplace. Put this into context.

**WHAT THE ASSESSMENT LOOKS LIKE**

At the time of writing this assessment consists of 3 questions. Each question is marked out of 8 making a possible total for the exam of 24 marks. The borderline between grades (known as the cut scores) can be moved according to the difficulty’ of the exam each year but is generally:

**Cut Scores**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Not Achieved** | **Achievement** | **Achievement with Merit** | **Achievement with Excellence** |
| **Score range** | 0 – 7 | 8 – 13 | 14 – 18 | 19 – 24 |

There are rumours that this exam may move towards one question only, broken into parts as per Level 2 geography. It pays to check the assessment specifications which will give more detail on this. They can be assessed at:

<http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/assessment-specifications/geography-l1/>

This site is also useful in that it indicates to students what they need to bring to the examination.

Previous years examinations indicate that questions are selected from the criteria rather than cover all of it. A resources provided section can also be used to gauge student understanding so students should be prepared to tackle unknown material in the form of tables, maps, diagrams, pictures and cartoons as well.

**HOW TO APPLY OTHER ACHIEVEMENT STANDARDS**

By studying this unit students will gain information that can be used in Internal Assessments. This is very clear in the case of the 1.3 Sustainable Use of an environment in which the concept of sustainable cities can be investigated further. Other examples are the 1.5 Research standard that can investigate the movement /migration of people, a 1.6 Contemporary Issue can look at transport issues or a 1.7 global can look at the global pattern of an ageing population. This can be especially useful as a reassessment opportunity since much of the content has been taught.

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