

Geography - Satisfactory - Year 10

Portfolio summary

This portfolio of student work shows that students can use some research to develop and modify geographically significant questions to frame an inquiry (WS1). They evaluate a range of secondary sources to select relevant geographical data and information to answer inquiry questions (WS1). Students collect, record and accurately represent geographical multi-variable data in appropriate forms including graphs, tables and maps, which conform to some cartographic conventions (WS1,2). They recognise some of the significant interconnections between people, places and environments (WS1,2) and identify changes in the characteristics of places and environments over time (WS2). They analyse data and information, make some basic inferences (WS1,2) and identify trends and anomalies across time and place (WS2). Students evaluate data and information, synthesising and communicating their findings in appropriate formats using geographical terminology (WS1,2).

Research assignment: Wellbeing indicators

Sample summary

Over a period of four weeks before completing the task, students examined the concept of human wellbeing and factors affecting human wellbeing. Students discussed how effective quantitative and qualitative indicators are at assessing levels of wellbeing. They were then introduced to the idea that composite indicators (such as the UN Human Development Index) are thought to give a more reliable measure of human wellbeing in a country than other indexes. Given this background, students progressed through a staged inquiry over eight lessons to develop their own justified composite wellbeing index.

Specifically, students were asked to independently select and explain 10 social and economic indicators that they considered to be effective in measuring human wellbeing in a country and to collect the relevant data using internet research. Using the statistical data, students constructed a composite wellbeing index with teacher assistance in the development of their methodology where necessary. Students were required to evaluate (from their perspective) the importance of each indicator in determining human wellbeing and decide on the weighting that each indicator would be given to calculate the index. This index was then used to rank the 10 countries according to the value of the composite wellbeing index. Finally, students evaluated their index for strengths and weaknesses, including the reliability and bias of the data sources, and proposed how their index could be improved. They presented the results in a geographical format to creatively and imaginatively display their wellbeing index.

Achievement standard

Subject

By the end of Year 10, students explain how interactions between geographical processes at different scales change the characteristics of places. Students identify, analyse and explain significant interconnections between people, places and environments and explain changes that result from these interconnections and their consequences. They predict changes in the characteristics of places and environments over time, across space and at different scales and explain the predicted consequences of change. They evaluate alternative views on a geographical challenge and alternative strategies to address this challenge using environmental,

9 Annotation 9
Explains some changes that result from these interconnections and their consequence

10 Annotation 10
Uses relevant geographical terminology

TASK 3
Collect the data and display your results in a table for the 10 countries your teacher has chosen. You may use any number of references; however, you must cite the source of all of your statistics in a bibliography.

Country (Legend: All indicators linked with referenced number from the table below based on rankings)	Indicator	GDP/Capita (5)	Unemployment Rate (1)	Life Expectancy (years) (5)	Infant mortality Out of 1000 (3)	Population in poverty Due to national poverty line (3)	% access to improved water (4)	Birth rate per 1000 people (2)	Literacy Rate (percent) (3)	Population (growth) (3)	Employed in agriculture (5)
Zambia		1844 USD	13.3%	57.02	43	60.5%	65	4.0	63.4	3.2%	52
Canada		51,958 USD	7.2%	81.24	4	14.7%	100	1.1	52% to a certain standard	1.2%	2
Peru		6,661 USD	4.2%	74.24	13	26%	87	2.1%	94.5	13%	0.6
Norway		100,818 USD	4.1%	81.45	2	11.29%	100	1.2%	100%	1.3%	2
Germany		46,268 USD	4.1%	80.89	3	15.5%	100	0.8%	99%	0.2%	1
India		1,498.87	3.6%	66.21	38	21.9%	94	2.0%	74.04%	1.2%	88
Indonesia		3,475 USD	6.25%	70.61	23	11.3%	87	2.0%	93%	1.2%	34
Ethiopia		503 USD	17.3%	62.97	41	29.6%	57	3.35%	39%	-2.6%	73
Argentina		14,715 USD	7.5%	76.01	11	30%	99	1.7%	98.1%	0.9%	2
USA		53,041 USD	5.5%	78.74	6	14.8%	99	1.3%	76%	0.7%	-2

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Annotations

1 Annotation 1
Records data in an appropriate format

Weight x Rank	16	32	4	36	24	60	28	12	20	8
% of women employed	48	61	78	54	27	51	61	68	56	73
Birth rate	42	42	42	42	42	42	42	42	42	42
Rank	2	7	10	4	5	3	7	6	5	9
Weight x Rank	4	16	20	8	2	6	38	16	10	18
Total scores	332	457	337	511	232	270	560	298	451	310

Rankings of countries based on Wellbeing Index:
 Norway - 500
 Germany - 511
 Canada - 457
 United States - 451
 Argentina - 332
 Peru - 298
 Indonesia - 270
 India - 232
 Ethiopia - 137
 Zambia - 110

Results:
 As expected, the most developed countries are also those with the highest levels of human wellbeing. Norway, Germany and Canada are considered as some of the most developed countries in the world, and are also the three highest ranked countries in the human wellbeing index. This relationship is also present in the developing countries, as Ethiopia and Zambia are the two lowest ranked countries. Similarly, the highest ranked countries were all either located in Europe or America, with the lowest ranked countries being situated in Asia, South America and Africa.

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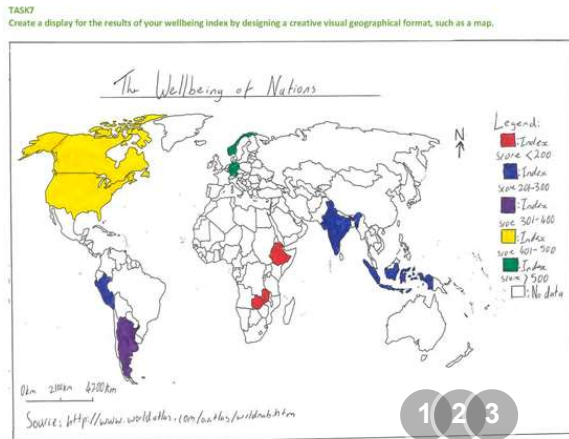
Annotations

1 Annotation 1
Analyses and synthesises data to draw relevant conclusions

2 Annotation 2
Uses relevant geographical terminology

3 Annotation 3
Constructs a wellbeing index that ranks countries

7 Annotation 7
Presents more than one area for improvement and presents the specific reasons for making these changes



Annotations

- 1 Annotation 1**
Uses suitable scale and cartographic conventions
- 2 Annotation 2**
Interprets given data to create a data display map of relative wellbeing ranking
- 3 Annotation 3**
Uses a conventional legend to represent relative wellbeing across countries

Data analysis: Human wellbeing

Sample summary

Students were required to use and respond to a range of presented data sources to form conclusions about human wellbeing in African countries. The task was completed in test conditions as a summative assessment at the end of a two-week inquiry unit. It involved a series of structured questions, and in their responses students were required to identify and explain data trends, draw inferences from data, and make predictions and proposals in relation to human wellbeing in Africa and the Millennium Development Goals.

Students were provided with several resources to which they had to respond. These included maps and a range of graphs comparing measures of human wellbeing across a number of countries

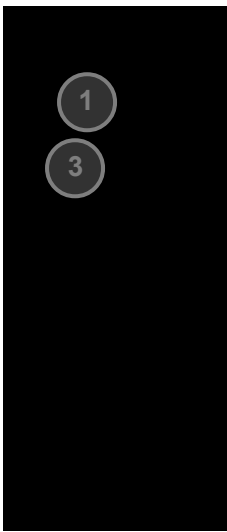
Achievement standard

Subject

By the end of Year 10, students explain how interactions between geographical processes at different scales change the characteristics of places. Students identify, analyse and explain significant interconnections between people, places and environments and explain changes that result from these interconnections and their consequences. They predict changes in the characteristics of places and environments over time, across space and at different scales and explain the predicted consequences of change. They evaluate alternative views on a geographical challenge and alternative strategies to address this challenge using environmental, economic, political and social criteria and draw a reasoned conclusion.

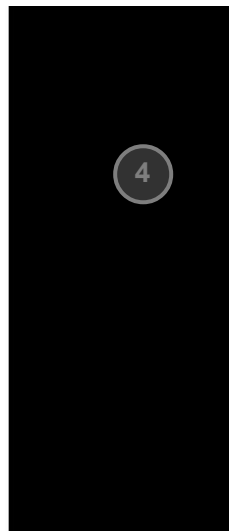
Students use initial research to develop and modify geographically significant questions to frame an inquiry. They critically evaluate a range of primary and secondary sources to select and collect relevant, reliable and unbiased geographical information and data. Students record and represent multi-variable data in the most appropriate digital and non-digital forms, including a range of graphs and maps that use suitable scales and comply with cartographic conventions. They use a range of methods and digital technologies to interpret and analyse maps, data and other information to make generalisations and inferences, propose explanations for significant patterns, trends, relationships and anomalies across time and space and at different scales, and predict outcomes. They analyse and synthesise data and other information to draw reasoned conclusions, taking into account alternative perspectives. Students present findings, arguments and explanations using relevant geographical terminology and graphic representations and digital technologies in a range of selected and appropriate communication forms. They evaluate their findings and propose action in response to a contemporary geographical challenge, taking account of environmental, economic, political and social considerations. They explain the predicted outcomes and consequences of their proposal.

Analysis



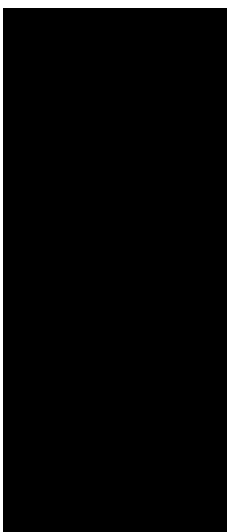
Refer to Figures 1-4

- Describe the general trend between life expectancy and infant mortality rates in Africa in 2007.
 - The general trend between life expectancy and infant mortality rates in Africa are:
 - The more developed countries in Africa tend to have lower infant mortality rates and a higher life expectancy (prosperity).
 - The less developed countries such as Nigeria and Central African Republic tend to have a lower life expectancy than most of the other countries and higher infant mortality rates.
- Suggest possible reasons for the general trend and anomalies in the data between life expectancy and infant mortality rates in Africa in 2007.
 - If the life expectancy rates that we usually means that the countries health and/or education has been. If the health and education rates than the number of children being born will decrease. Some reasons for the anomalies for life expectancy and infant mortality rates may be more disease affecting only older adults, doctor may not be working on the children. The cures for most diseases may not be available or they be too expensive for most family.



Annotations

- 1 Annotation 1**
Identifies a general trend in the data
- 2 Annotation 2**
Provides examples of the trend
- 3 Annotation 3**
Presents reasons for the general trend in the data
- 4 Annotation 4**
Presents reasons for anomalies in the data

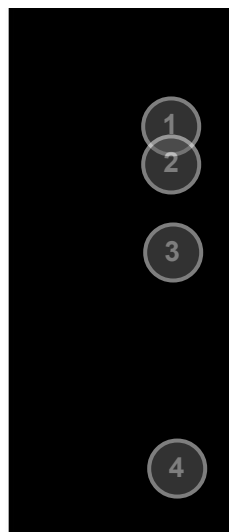


5. Using evidence from Figures 5-11, explain how the process of urbanisation improves levels of human wellbeing.

Main points	Elaboration and evidence
Average Annual Income (per person, 2015)	In Figure 5 it shows that there is an increase in the amount of people living in urban areas and in Figure 6 it shows that average annual income has also increased. This means that when more people are moving to urban areas their income increases. These levels of increase in Figure 5 are an early benefit of increase in Figure 6. When people move into rural areas it improves the level of human wellbeing because it allows people to have better jobs than rural people have money for food and health care.
Infant Mortality Rates (have dropped)	In Figure 7 it shows that the number of infant mortality rates has decreased. This is because the number of people migrating from rural areas to urban areas has increased (shown in Figure 6). In Japan the infant mortality rates has decreased from 3.3 to 2. On the other extreme in Malawi the infant mortality rates has dropped from 63.3 to 2. Therefore the levels of human wellbeing increase as the number of people moving to urban areas increases.
Literacy Rates in (teen to Adults)	In Figure 10 it shows that the amount of literate people in Malawi is increasing. In people ages 15-24 in 72% of young people and adults in 81.2%. This is because more families are moving to urban areas which gives children a better education. This is because there are more schools there. In countries like Australia and Japan the literacy rates are at 100% this is mostly because a large percentage of people live in urban areas.
Percentage of rural poverty	The percentage of rural poverty is over 70% in Malawi, this is shown in Figure 11. This means that out of the 64.7% of people living in rural areas 57% of them are living in poverty. When people in Malawi start to move into urban areas the number of poverty will decrease. In countries like Australia and Japan the number rural people living in poverty is 0% this means that those people live in urban areas will live in poverty.

8. Evaluate the environmental, economic, political and social impacts of increasing levels of urbanisation in developing countries like Malawi.

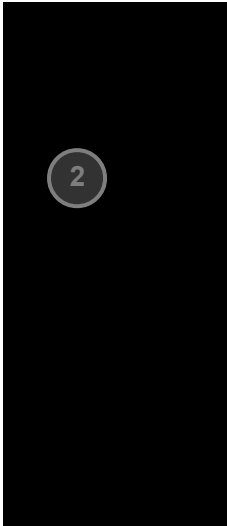
Environmental impacts of increased levels of urbanisation	<ul style="list-style-type: none"> More land that could be used for agriculture is removed as a result of urban sprawl. More pollution (rubbish, run-off, CO2).
Economic impacts of increased levels of urbanisation	<ul style="list-style-type: none"> More people make more money when they live in urban areas. Less people are working on subsistence farmers so the land can be used for industrial farming. Governments have to fund infrastructure for growing cities and taxes will increase as a result.
Political impacts of increased levels of urbanisation	<ul style="list-style-type: none"> Governments have to provide infrastructure. Poor people living in urban areas tend to be able reliant.
Social impacts of increased levels of urbanisation	<ul style="list-style-type: none"> More people of a variety of differing activities are packed together into a smaller space. Human well-being increases as more people move to urban areas.



Annotations

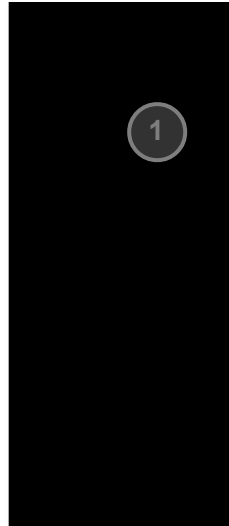
- 1 Annotation 1**
Explains the impact of urbanisation on wellbeing
- 2 Annotation 2**
Supports the explanation using specific data
- 3 Annotation 3**
Draws simple conclusions

4 Annotation 4
 Makes explicit connections between increasing urbanisation and environmental, economic, political and social developments



7. If people in developing countries continue to move from rural places to cities in the future, draw a reasoned case for or against what may happen to the wellbeing of people who remain in rural areas. Explain the reasons for this conclusion.

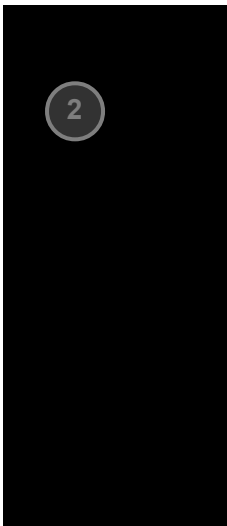
The well-being of people who remain in rural areas after most of the people move to urban areas will increase. This is the trend known by developed countries over the years. The people who remain are usually farmers who are easy producers of food, vegetables, etc. Or run the businesses in the small rural towns. These people make for more money than those who live in rural areas of developing or less developed countries. With money comes access to being small water, housing, better farming technology and the ability to get outside of food and cash. The more being produced, the more there is available to spend off to markets and export overseas increasing money. There is a continuous cycle of income from this. People in developed countries who have access to health care services either by proximity for example through air transport to hospitals by flying doctor services as Australian people do in remote areas. People who live in rural areas of poorer countries have a lower level of human well-being. This is because they don't have access to medicines and a lot of people living in rural areas in developing and less developed countries are subsistence farmers. These people only produce enough to eat with only money going to food and such things with no disposable income and are unable to produce enough to use enough people or advanced enough technology to produce a lot to earn money for other things. With people moving to urban areas in developing countries, the ones who are left will end up like their developed counterparts with better access to what they need to increase their well-being.



Annotations

1 Annotation 1
 Presents conclusions about the wellbeing of people in rural areas

2 Annotation 2
 Uses reasons to support the conclusions



8. Explain the predicted outcomes and consequences for the people in Sub-Saharan Africa by focusing on this MDG in the future.

As the amount of people living in urban areas increases the amount of people left living in rural areas decreases. This means there is smaller amount of people left in these areas, making the work load heavier. There will be less food produced and the remaining amount will be left to those. As well as the facilities such as schools or medical centres cannot be provided in these areas as there is not enough people.

Meaning that most of these people will have a low life expectancy and be illiterate. Due to the lack of skills transferred to these people that will mean that a chance of getting a job in their current sector or trade. There will also be a higher birth mortality rate as there are no hospitals or services to help.

As the rural population decreases the more of an impact it has on their wellbeing. As there is less services that can provide for them and less food. If people in rural areas choose to remain where they are, their conditions will grow harder.



Annotations

1 Annotation 1
 Presents connections between predicted outcomes and consequences

2 Annotation 2
 Uses geographic factors to support the explanation