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91242



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Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 2 Geography 2024

91242 Demonstrate geographic understanding of differences in development

Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate geographic understanding of differences in development.	Demonstrate in-depth geographic understanding of differences in development.	Demonstrate comprehensive geographic understanding of differences in development.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL parts of the question in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–10 in the correct order and that none of these pages is blank.

Do not write in the margins (// // // //). This area will be cut off when the booklet is marked.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

Excellence

TOTAL 07

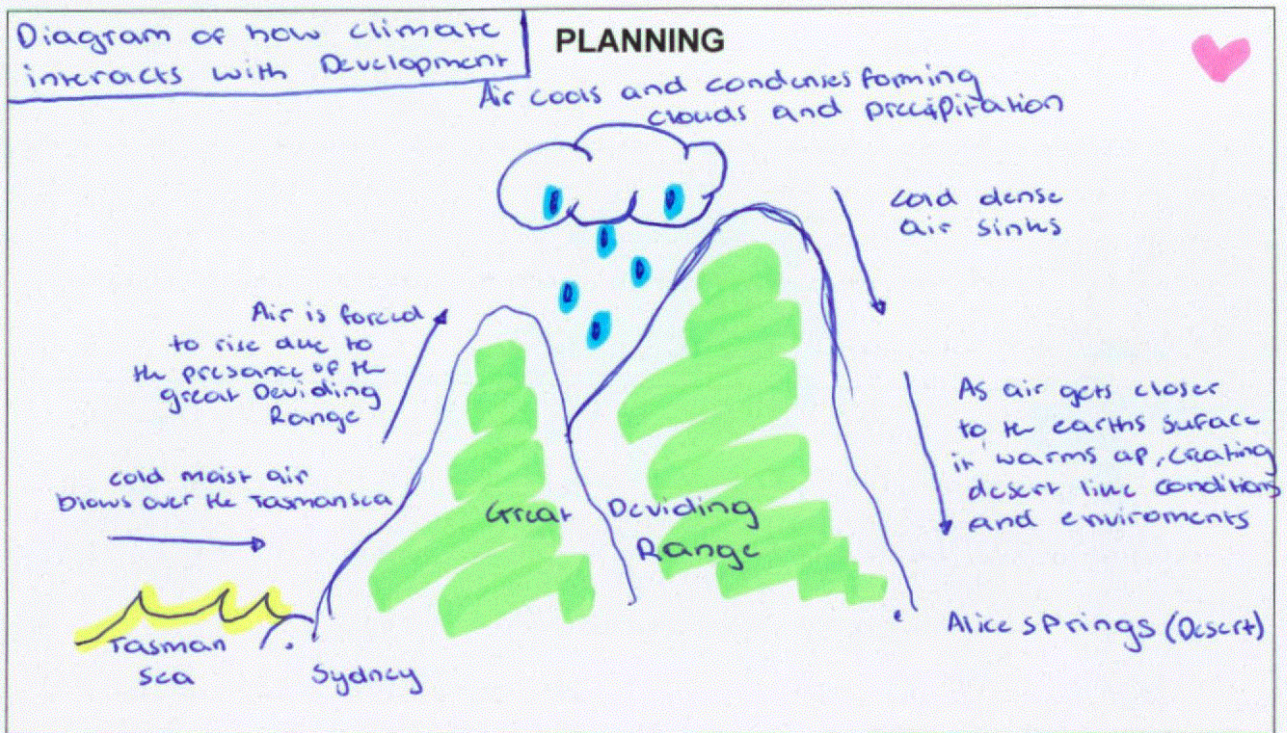
QUESTION

- (a) Name ONE factor and explain how it contributes to differences in development in named case study areas/regions.

Factors that contribute to differences in development may include:

- natural factors, e.g. climate, location, or natural resources
- cultural factors, e.g. colonisation, trade, or political systems.

Factor: Climate ♥



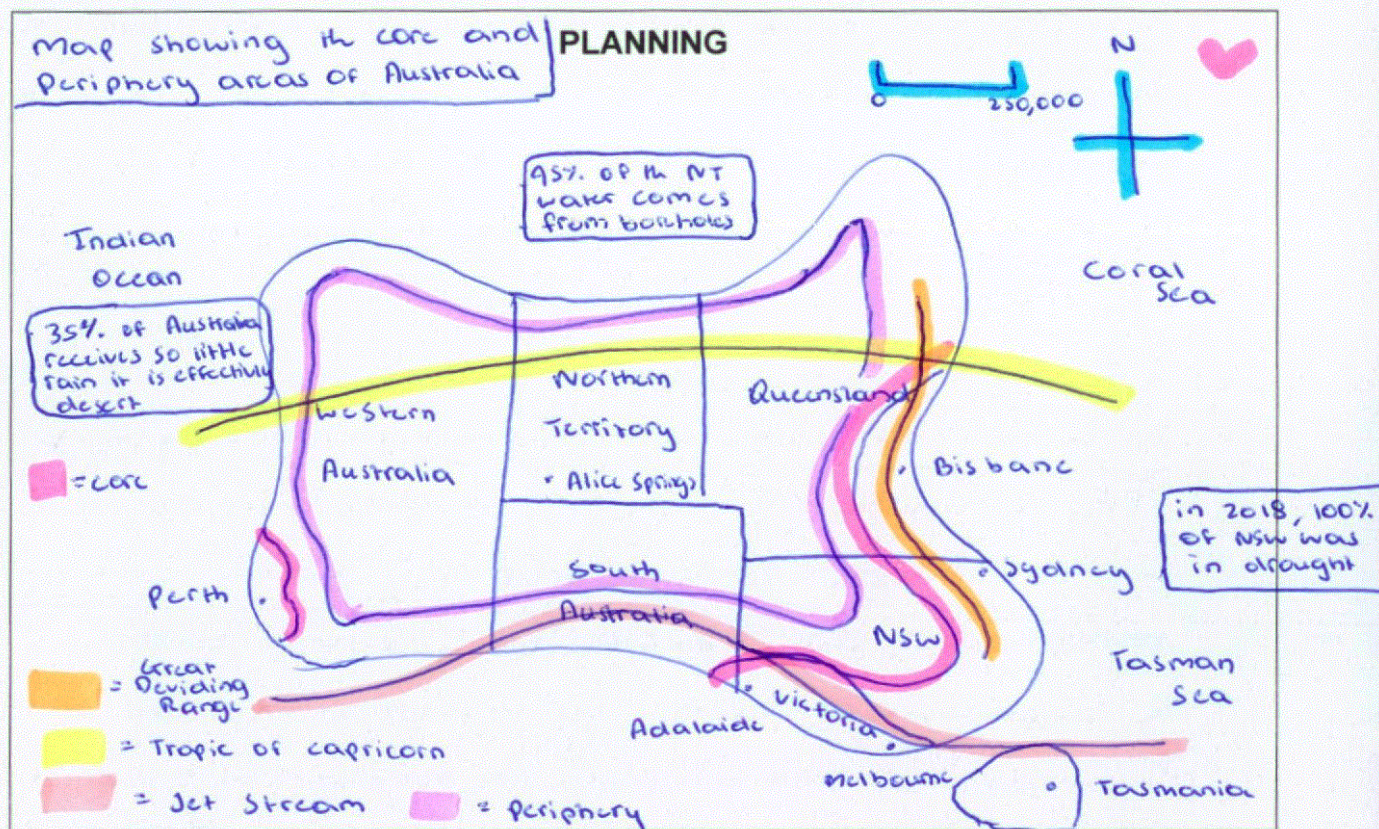
Based on the core and periphery model, Australia's core is more developed than its periphery. The core consists of state capitals (excluding Darwin) and is made up of both an Eastern and Western core. In the Western core is Perth and in the Eastern core is Sydney, Melbourne, Brisbane, and Adelaide, etc. The periphery consists of the Australian Outback, Darwin, and Alice Springs, etc. We can see in the diagram above in the planning section, that climate interacts with development and has contributed to the difference in development between these two areas in Australia.

Both the Eastern and western coasts of Australia are located in temperate climate zones. Temperate climates are those which don't experience temperature or rainfall extremes, making them ideal for human life. These core areas also receive the most abundant of orographic (relief) rainfall due to the presence of the Great Dividing Range. This mountain range acts as a barrier to the moist air from the Tasman Sea, causing orographic rainfall. For example, Queensland receives up to 4000 mm of rain p.a. and Coastal NSW (New South Wales) receives roughly 1200 mm of rain p.a. This is ample rainfall for agriculture, industry and domestic use. Even during dry periods such as the millennium drought from 1995 to 2011, and the 2019 drought in which 100% of NSW was in drought, core areas such as Sydney benefited from their water infrastructure. In Sydney this includes 11 inter-connected dams including the Warragamba dam. As well as this, main coastal areas also use desalination plants that turn sea water into fresh water. Sydney's is the largest and can provide up to 15% of its entire water supply. Sydney also has one of the largest per capita water storages in the world. Lastly, the western sector of the Great Dividing Range in NSW is also good for commercial grain operations. This is because of the Murray-Darling River Basin. Farms here benefit from irrigation from the river during dry periods. This river system is fed by orographic rainfall due to the presence of the Great Dividing Range. The Basin produces $\frac{1}{3}$ of the nation's food supply and is home to roughly 40% of its farms and 65% of its irrigation farms. This water infrastructure means that core areas have not been negatively impacted by climate and are not climate dependant. People in the core...



- (b) Name ONE strategy and explain how it has reduced (or could reduce) differences in development in named case study areas/regions.

Strategy: Royal flying doctors service (RFDOS)



Following the core and periphery model, Australia's core is more developed than its periphery. This includes access to healthcare services, treatment and workers. In rural areas men are 2.5 times, and women are 2.8 times more likely to die of potentially avoidable causes than in the core. As well as this, in the periphery people are 2 times more likely to be hospitalized and 20% more likely to contract a disease than in the core. This has led to a difference in life expectancy rates, 84 in the core and roughly 74 in the periphery (e.g. in the NT, life expectancy at birth is 76).

This discrepancy in health between the core and the periphery is due to a lack of access to healthcare in the periphery. Geographically,

Isolated people in rural areas are disadvantaged, with over 45,000 people in Australia not having a general medical centre within a 1 hour drive from their house. This limited healthcare is said to have effects on people within the periphery, with the Royal Flying Doctors Service (RFDS) saying "we often notice that communities disregard or put off their health issues due to a lack of primary care." In the periphery there are only 1.3 doctors per 1000 people and only 7 hospitals in the NT.

To combat this poor access to healthcare in the periphery the RFDS, established in 1928, uses the latest aviation, medical and communications technology to provide 24-hour emergency and non-emergency care. This essential service provides assurance to people working, living, and travelling in rural and remote Australia, where healthcare services are few and far between. From 2022/23 the RFDS transported over 27,000 patients by air and 59,000 by road. In any given year they also deliver 13,000 community health consultations. As well as just physical health, the RFDS also offers mental health and well-being support. Each year they offer over 2000 face-to-face mental health consultations in just the NT and the outback. This helps to ~~combat~~ combat increased mental health and suicide issues within the periphery.

Therefore, this strategy has been and continues to be effective in helping reduce the difference in development between the core and periphery of Australia. By increasing access to healthcare in the periphery, geographically isolated people...

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Write the question number(s) if applicable.

QUESTION
NUMBER

a (a)... are also less climate dependant as only 0.7% of it's population work in agriculture, with the majority working in the tertiary and quaternary sectors. This has led to a higher average income within the core of \$80,000 and thus a higher home ownership percentage of 70%.

Because core areas of Australia have not been negatively effected by climate and recent droughts, these core areas have continued to grow. From 2012 to 2018 the population of the core grew by roughly 1.8 million (700,000 in Melbourne and 550,000 in Sydney).

Sydney now has a population of over 5 million, and because of this, access to healthcare is good. In core areas there are approximately 4.4 doctors per 1000 people and in NSW alone there are 399 hospitals. More people living within core areas, means more people who have completed higher levels of education (77% complete secondary schooling, 41% complete tertiary education), and thus more people are likely to work in skilled occupations.

As well as this, core areas also have numerous specialist services.

such
as
medicine

For example, in Sydney they have the Sydney Childrens hospital, the Sydney dental hospital, the Sydney eye hospital, and the Royal hospital for women. Better access to healthcare services within the core areas ~~to~~ will mean that overall people within the ^{core} periphery are healthier than those in the ~~core~~ periphery. This is seen through a high life expectancy at birth of 84 in the core. This indicates not only a good quality of life but also high levels of development in the core of Australia.

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The periphery is located in arid /semi-arid climates that receive less rainfall than the temperate conditions of the core because they are located inland from the sea and away from the Great Dividing Range. Therefore the mainland receives less than 500 mm of rain p.a. And 35% of Australia receives so little rain it is effectively desert. As well as this, 95% of the Northern Territory's water supply comes from boreholes, meaning that some of Alice Springs water is between 10,000 - 30,000 years old. Additionally, these areas in the periphery are also highly susceptible to drought. However, unlike the core, during dry periods such as the millennium drought and the 2018 drought, the periphery does not benefit from any water infrastructure. Thus areas in the periphery, such as Broken Hill are negatively affected by climate and are climate dependant. People in the periphery are also more climate dependant as 17% of its population work in agriculture. This means periphery communities are reliant on climate as this is what affects farmers income and thus their contributions to local businesses and services. During the millennium drought 10,000 cotton farmers lost their jobs and during the 2018 drought, the average dry farmers income fell by \$ 67,000. This has led to a low average income in the periphery of \$ 56,000 and thus low home ownership of 42%.

And depression
rates of
farmers rose
by 70%.

Because of this over-reliance on climate within areas of the periphery, towns such as Broken Hill are declining economically and are experiencing a drop in population. People are having to

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leave rural areas as farmers can no longer contribute to local businesses. This includes the farmers themselves, as research shows that the number of farmers in Australia has halved since 2001. This declining population can also be seen through the fact that the Australian outback covers 73% of Australia, yet only 5% of the population lives here. We can also see the effects of climate on rural population numbers in a quote about Broken Hill "physiologically it [drought] is starting to effect us and this town is slowly being killed. School teachers, lawyers, they won't come here and Broken Hill will die. People have already began to leave." This declining population within the periphery means access to education and healthcare is poor, as the population cannot support these services. Thus only 57% of people complete secondary education, and only 19% complete tertiary education. As well as this there are only 1.3 doctors per 1000 people and in the whole of the NT there are just 7 hospitals. The main hospital of the NT, Royal Darwin hospital, has to make over 600 referrals each year, and Tennant Creek hospital in the middle of the NT has only 20 beds. Additionally, the periphery has 80% fewer specialists, 65% fewer psychologists and 68% fewer optometrists than the core. This lack of access to healthcare services in the periphery will mean that in general ^{people in the periphery} they are less healthy than those in the core. This is made clear through the statistics, people are 2 times more likely to be hospitalized, and 20% more likely to contract a disease in the periphery than in the core, and suicide rates are 2 times higher in the periphery than in the core. This ~~worsened~~ ^{worsening} poor health in the periphery has led to a lower life expectancy of

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79 (66 in extremely remote areas). This not only shows us that people within the periphery have a lower quality of life, but also ~~that~~ that levels of development are lower in the core than in the periphery, due to climate.

Therefore, clearly climate interacts with development, meaning that in Australia, people within the periphery have a lower quality of life than those in the more developed core.

b (b) will be healthier and thus have a better quality of life. Not only will this improve the quality of life of people living in the periphery, it will also encourage more people to live in the periphery, without having to worry about not having access to medical services. More people in the periphery long term will result in more jobs, more infrastructure and more investment, bridging the gap in development between the core and periphery of Australia. Another notable strategy that has helped improve this difference in development is the School of Air, established in 1951. The School of Air has helped over 30,000 students since 2003 gain access to a distance education, helping them to complete their education and thus ~~z~~ gain opportunities that will help repair this gap in development in Australia.



Excellence

Subject: Geography

Standard: 91242

Total score: 07

Grade score	Marker commentary
E7	<p>This response answers both parts of the question well and provides clear evidence for an E7. The response integrates case study evidence and uses geographic terminology concepts throughout.</p> <p>Part A fully explains the factor of climate and how it influences differences in development within Australia. The candidate incorporates geographic concept knowledge clearly and uses a good range of case study evidence (development statistics) to enhance the response.</p> <p>Part B explains the strategy clearly and how it improves development in the periphery of Australia. More explicit reference to reducing the differences between the core and periphery would extend the answer.</p> <p>Holistically, an Excellence-level understanding of differences in development between two case study areas is demonstrated. The map and diagram enhance the overall response.</p>