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91429



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Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Level 3 Geography 2024

91429 Demonstrate understanding of a given environment(s) through selection and application of geographic concepts and skills

Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Demonstrate understanding of a given environment(s) through selection and application of geographic concepts and skills.	Demonstrate in-depth understanding of a given environment(s) through selection and application of geographic concepts and skills.	Demonstrate comprehensive understanding of a given environment(s) through selection and application of geographic concepts and skills.

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.

Pull out Resource Booklet 91429R from the centre of 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.

Achievement

TOTAL 04

pattern of wildfires
two diff perspectives
consequences for ppl + environ

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INSTRUCTIONS

Read the resource booklet about wildfires in Canada. Integrate geographic concepts and supporting evidence from any of the resources into your answers.

You may use the space below to plan your responses.

PLANNING

QUESTION

- (a) Using evidence from the resources, describe the pattern (spatial or temporal) of Canadian wildfires.

Home for Canada's notorious wildfires,
~~wildfires in Canada alone make up~~, Canadian forests make up approximately 9% of the world's forests. This is largely the boreal forests, consisting of black spruce which is extremely flammable. This, paired with the particular 'build' of spruces (Resource B, paragraph 3) and ~~the~~ Figure 1, provides the perfect set up for wild fires.

Within Resource C,
~~Both Resources C and~~ both figures 2 and 3 show the ^{definite} ~~adama~~ trend of ^{wildfire} ~~clust~~ cluster centralised in the boreal forest continually throughout the years. In figure 2 specifically, the large central cluster spans approximately 300km in width and approximately 900km in length. This is ~~the~~ a part of a linear pattern of dispersal of fires, placed between 140W and ~~4~~ ~~app~~ about 75W on the map (simultaneously within the boundaries of the boreal forest. Another ^{prominent} cluster ^{which} ~~located~~ is overall present throughout all the years of wild fires. is located beyond 140W in the ~~the~~ boreal forest region. This could also be ~~ingly~~ included in the linear pattern mentioned Prior. Lastly in the 60W region below 50N, the small clustered among a scattered pattern of wildfires overall is present ~~throughout 1986-2015 as we~~ ^{since 1960}

- (b) What are two different perspectives related to the wildfires, and why do people hold these perspectives?

Perspective 1: Indigenous Nations view ^{that "fire and is} ~~fire and wildfires~~ ^{a vital} ~~are vit~~ and healthy part of maintaining a balanced landscape" (Resource D) they believe fire is crucial if controlled. ^{The indigenous} ~~Their pe~~ perspective is that fire overall should be used properly and wildfires specifically, do aid in ~~the~~ stimulating biodiversity and maintaining forest areas from becoming overgrown which would result in larger fires.

This perspective is fuelled by the belief that ~~the~~ fire on land is not unnatural, but the nature of land fires now are out of control and vary from how indigenous people have managed fires ~~for~~ in the past. ~~A~~ ^{Citizen,} ~~GA~~ Métis Nation ~~Greene~~ Dane de Souza, said, "... But we've replaced fires of choice with fires of chance."

Indigenous views believe that the restriction of indig-
-enous and the wildfires ~~to~~ ^{currently} are interlinked.

They don't think it's fair due to the statistics of Indigenous deaths due to fires: "Indigenous people are more than 10 times more likely to die in a fire than non-Indigenous people" This is due to location of fires in remote areas where the people lack support to reduce risks.

^{many}
 Perspective 2: Political perspectives on wildfires link the recent disasters back to climate change being the core source. Justin Trudeau, Canadian prime minister in ~~to~~ 2016 believes that ~~wildfires~~^{people} must combat both wildfires and climate change to achieve the desired result.

Not only is there an environmental benefit in this perspective, but there is also an economic opportunity as Trudeau states "... ~~both~~ to create those great jobs and opportunities..." referring to the act of fighting climate change.

Trudeau views the wildfires being a sign of how climate ~~change~~^{change} can permanently implement everything regardless of other efforts in other aspects of ~~Canada's~~^{Canada's} environment are made. He says "There are some ~~politicians~~^{politicians} that still think you can have a plan for great jobs and growing the economy without having a plan to fight climate change." This perfectly sums up Trudeau's perspective on how to solve the growing issue of wildfires. Dealing with each wildfire individually, without ~~seeing~~ seeing the problem as a big picture, will not solve the issue in the long run.

Intro
PEOPI → air + economic + in

6

Envir → growth + ecosystem + air → figure 11

- (c) Wildfires are an environmental disaster with significant environmental, economic, and social costs. Evaluate the consequences of wildfires for people and the environment.

Wildfires are notorious for ~~only~~ causing destruction and damage to both people and their environment. From ^{about} ~~burning~~ 7,300 forest fires occurring each year over the last 25 years, Canada is ~~by far~~ used to the ~~constant~~ consistent consequences brought from wildfires.

Environmentally, it is no surprise that many areas of Canada greatly suffer from burnt areas. However, wildfires to prove fairly beneficial to the growth and reproduction of certain tree species within a forest. In Figure 9, we see that forest fires help with nutrients stored on the forest ~~floor~~ ^{floor} being released. The destruction of some trees pave way for ~~the new~~ ^{new} growth. "fires open up forest canopy to sunlight, resulting in new growth." Small wildfires can help prevent larger ones by essentially eliminating a accumulation of fuel (eg: dead vegetation) on a small scale. Lastly, specific tree species are able to thrive reproductively from wildfires. However

Wildfires do ~~however~~ ^{however} present a threat to Canada's ecosystems. By killing specific species or impacting migratory patterns, fires can have a ~~chain reaction~~ ^{negative} flow on effect to not only tree species, but animal species too.

Some effects on the environment also greatly affect the livelihood of people and their communities. "Loss of forests reduces the number of carbon sinks" (^{Resource} ~~figure 9~~ E, figure 9). Air pollution is one of the most prominent issues ^{for} ~~for~~ people caused by wild-fires. On page 15 of Resource E, ^{states how} ~~we see~~ in June 2023, the ^{air} pollution index ~~is~~ For parts of New York were 8 times above normal. Figure 11 backs this statement and shows how extreme the wild fires' effects are. As well as an obvious risk to health, the Air pollution ^{has an} ~~negative~~ consequence for citizens economically also in some cases. Chris Ricciardi (page 15, paragraph 2) mentioned cutting back ^{work} hours which has a ^{financial} ~~an~~ implication for each worker. ~~The~~ Many Canadians are majorly threatened by wildfires as in page 13 it states "more than 10% of ^{Canadians} ~~cases~~ are living in homes that are increasingly threatened by wildfires." However the risk for people in on-reserve First Nation Communities ^{are} ~~is~~ nearly 3x higher. The Indigenous do suffer more due to their livelihood being very dependant on the state of their land. ^{this most land affected by fires also is land which sustains indigenous rights} Many live off their land year-round which adds another issue to the concept of evacuating for Indigenous people.

Overall, ^{many} ~~the~~ consequences ~~for~~ the environment ^{flow} ~~lead~~ into the consequences for people of Canada (majorly ~~Indigenous~~ Indigenous's dependence on land and the health of ^{majorly} ~~majorly~~ suffers from wildfires' damage to ~~the~~ areas ^{and the air.} ^{Geography 91429, 2024} 01691

Achievement

Subject: Geography

Standard: 91429

Total score: 04

Grade score	Marker commentary
A4	The response accurately describes the pattern of wildfires. Perspectives are described, but why these perspectives are held is only implied. Consequences are mainly descriptive, with no evaluation.