

NATIONAL SENIOR CERTIFICATE

GRADE 10

NOVEMBER 2019



MARKS: 225

TIME: 3 hours



This annexure consists of 10 pages.

FIGURE 1.1: GLOBAL WARMING

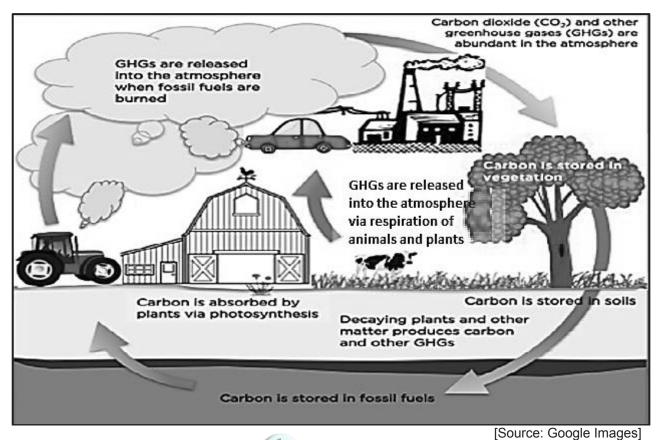
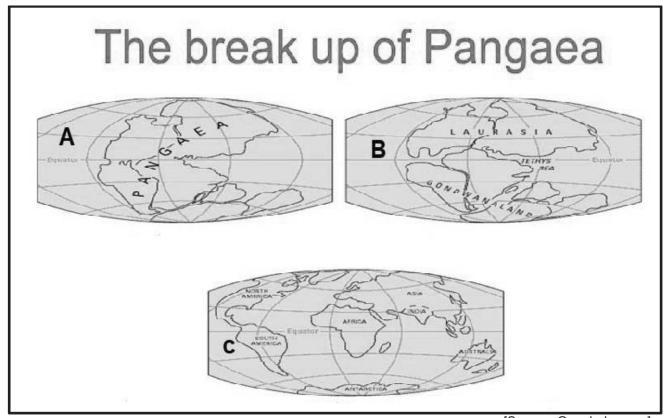


FIGURE 1.2: CONTINENTAL DRIFT ÉCOLEBOOKS



[Source: Google Images]

FIGURE 1.3: SYNOPTIC WEATHER MAP

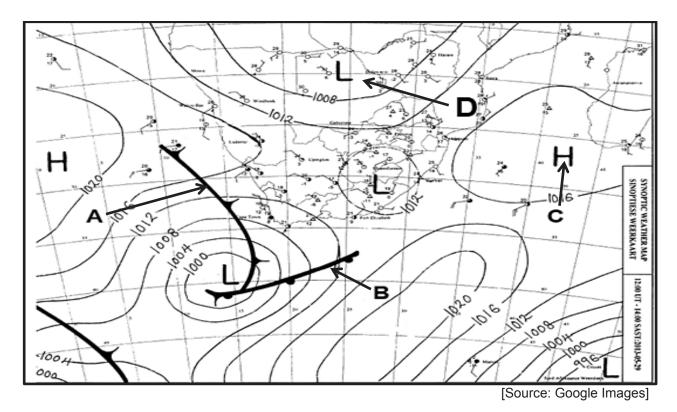
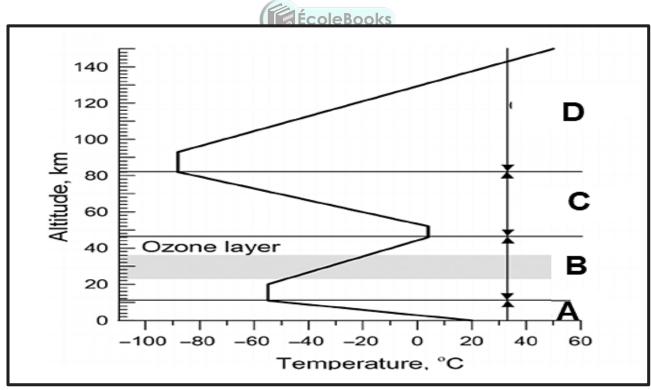


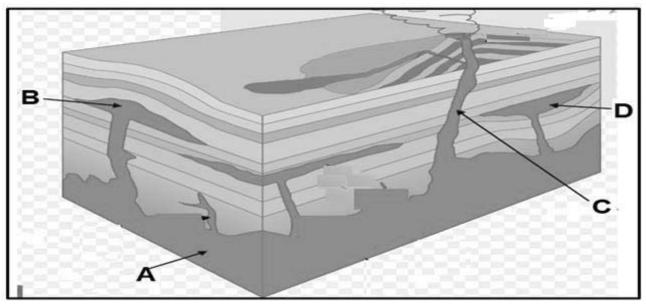
FIGURE 1.4: LAYERS OF THE ATMOSPHERE



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[Source: Google Images]

FIGURE 1.5: INTRUSIVE IGNEOUS ACTIVITY AND FEATURES



[Source: Google Images]

FIGURE 1.6: VOLCANIC ERUPTION

Mount Sinabung: Volcano eruption warnings after huge column of ash prompts panic in Indonesia



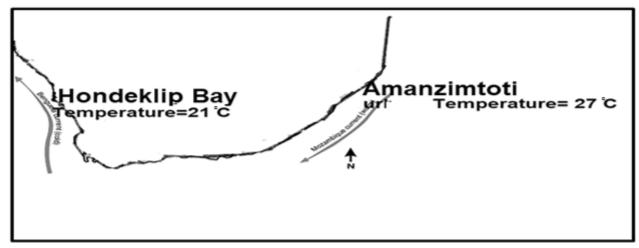
A huge column of ash was blasted almost five miles into the sky above the Indonesian island of Sumatra after an active volcano erupted. Indonesian officials warned that further volcanic activity was possible although the volcano's alert level remained unchanged.

Residents have been told to stay indoors and to wear face masks, if venturing outside, to protect themselves from volcanic ashfall. Sinabung was inactive for around 400 years before it erupted in 2010, killing two people. Since then it has become one of this South East Asia's most active volcanoes, bringing both negative and positive effects to the nation.

More than a dozen people were killed and thousands were forced to flee when it erupted in 2014. Indonesia is particularly prone to seismic activity due to its location on the 'Ring of Fire', an arc of volcanoes and fault lines encircling the Pacific Basin.

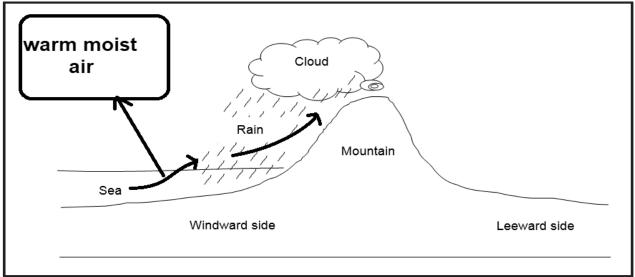
[Source: https://www.independent.co.uk/news/world/asia/mount-sinabung-volcano-eruption

FIGURE 2.3: FACTORS AFFECTING TEMPERATURE - OCEAN CURRENTS



[Source: Google Images]

FIGURE 2.4: RELIEF (OROGRAPHIC) RAINFALL



[Source: Google Images]

FIGURE 2.5: EARTHQUAKE IN NEPAL



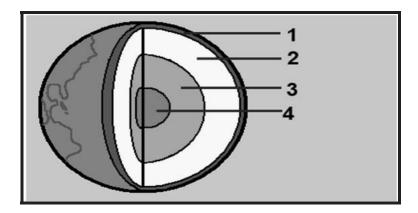
An earthquake, which measured 7,8 on the Richter scale, struck Nepal on April 25, 2015, toppling multi-story buildings in Kathmandu and creating landslides and avalanches in the Himalaya Mountains. It was the deadliest earthquake in the region in 81 years because nearly 9 000 people died and more than 22 000 suffered injuries.

Humanitarian organisations responded quickly to the disaster with search and rescue teams and immediate aid deliveries. Work is still underway to rebuild schools, health clinics, houses, livelihoods, and to help families and communities gain more resilience to environmental shocks. The survivors asked for assistance (help) from people all over the world.

[Source: www.worldvision.org/disaster-relief-news-stories/2015-nepal-earthquake-facts]

FIGURE 2.6: THE INTERNAL STRUCTURE OF THE EARTH

The earth is like a boiled egg with different layers, namely: *the outer core, inner core, crust and mantle*. The crust is a thin layer made up of different types of rocks.



[Source: Google Images]

FIGURE 3.3: KHOMANANI 'CARING TOGETHER' ON HIV/AIDS

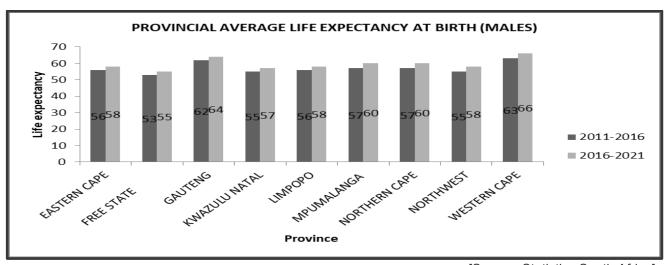
The campaign loveLife has run since 1999 and uses a wide range of media directed mainly towards teens. Aids is one of the main contributors to South Africa's infant mortality rate. In 2016, deaths due to HIV/Aids were estimated to be about 150 376 and 3,7 million people were taking ARV treatment for HIV. By 2018, more than 4,5 million people were taking ARVs.

There are several large-scale communication campaigns related to raising awareness of HIV and Aids, as well as broader health-related issues.

Khomanani, meaning 'caring together', ran since 2001 and was the government Health Department's premier Aids – awareness campaign. Soul City and Soul Buddyz are two multi-media campaigns – targeted at adults and children, respectively – that have a combined annual budget of R100 million, and utilise broadcast, print and outdoor media to promote good sexual health and well-being.

[Source: www.southafrica-pig.blogspot.com]

FIGURE 3.4: PROVINCIAL AVERAGE LIFE EXPECTANCY AMONG MALES



[Source: Statistics South Africa]

FIGURE 3.6: FLOODS IN KWAZULU-NATAL

At least 51 confirmed dead in KZN floods – reports

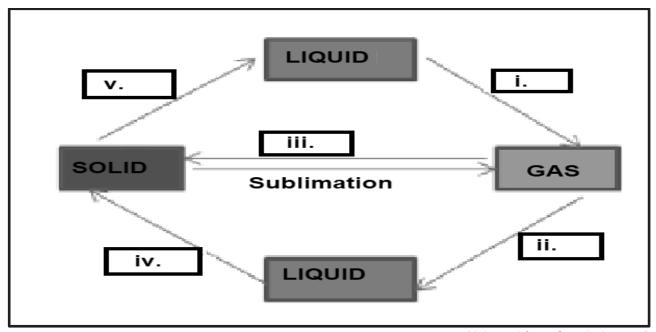
At least 51 people have been confirmed dead following flooding in KwaZulu-Natal which was triggered by heavy rains, EWN has reported. KwaZulu-Natal Cooperative Governance MEC Nomusa Dube-Ncube reportedly said that more bodies had been discovered under the rubble as rescue operations continued throughout Tuesday night. Five more people remain unaccounted for, she said.

'Dozens of cases of collapsed walls and flooded homes have been reported, with 235 Durban homes already assessed as damaged. Roads have been flooded too, disrupting traffic. Motorists and pedestrians are urged to exercise utmost caution on the roads that are already flooded or where there is high risk of flash flooding,' said Dube-Ncube. Authorities had reported 145 displaced persons, some of whom had already found shelter with relatives.

Dube-Ncube urged residents and visitors to the province to remain on full alert and to move to higher ground if under threat.

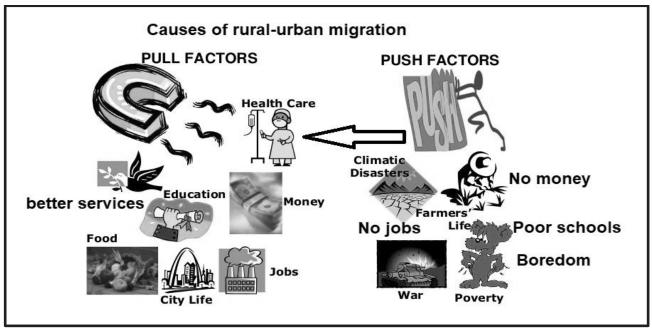
[Source: https://www.news24.com/SouthAfrica/News]

FIGURE 4.2: THE DIFFERENT STATES OF WATER



[Adapted from Google images]

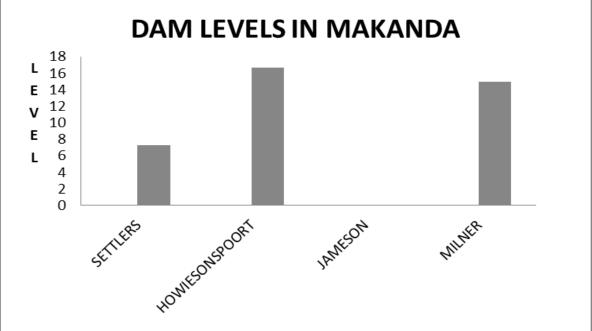
FIGURE 4.4: RURAL-URBAN MIGRATION



[Source: Google images]

FIGURE 4.5: WATER CRISIS IN MAKHANDA, EASTERN CAPE





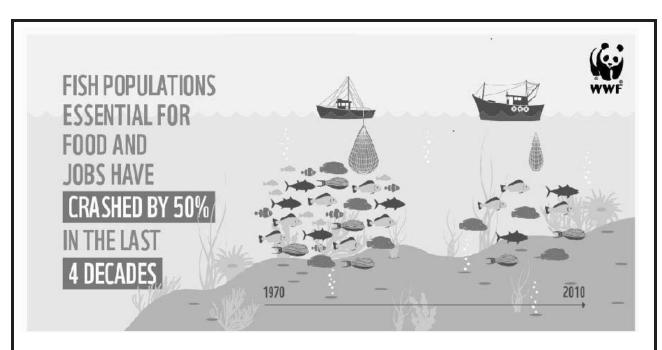
Makhanda is currently using 18 megalitres of water each day – about 180 litres per person. The crippling drought has nearly emptied dams and it is unlikely to recover until/unless we receive significant rainfall.

And so we are restricting consumption to 50 litres per person a day with immediate effect, to be able to use the Settlers supply for longer and push back the date at which it ceases to be viable.

We are also trying to stabilise the output as well as increase the number of town reservoirs filled by the James Kleynhans Purification Works to supply parts of the city immediately, alleviating some pressure on Settlers.

[Source: http://www.makana.gov.za/water-crisis/]

FIGURE 4.6: FISHING POPULATION CRUSHED BY 50%



Many people in South Africa depend on fish as a source of food and income. In South Africa the fisheries industry is worth R6 billion and employs over 27 000 people. Overfishing and illegal fishing threatens the livelihoods of people employed in the industry. It also threatens vulnerable ecosystems and marine animals such as seals, coastal birds, and larger fish that depend on fish as a source of food.

There's only a limited amount of fish in our oceans, and those resources are becoming depleted.

According to the World Wildlife Fund (WWF) more than 30% of the world's fisheries have been overfished and is in need of strict management to restore them. Target fishing of top predators like tuna is changing marine communities. Because of commercial fishing, populations of the Atlantic Bluefin tuna have declined to the point where their survival as a species is threatened. However, we can solve this problem by reforming fisheries management.

[Source: https://www.westerncape.gov.za/general-publication/overfishing]











