

Grade: Achieved

For Achieved, the student needs to demonstrate understanding of human-induced change within the Earth system.

This involves describing change within the Earth system that has resulted from human activity, and using science ideas to describe effects of the human-induced change.

This student has described what deforestation is. They also use the science idea of habitat to describe how deforestation affects the biosphere.

The student has described how deforestation decreases water quality and harbour depth through sedimentation, affecting both the hydrosphere and biosphere.

For Merit, the student could explain how the removal of forest habitat affected a species, for example with either a food chain or supported by data. They could use science ideas to explain water quality changes, either biologically, chemically, or physically.

Achieved

NZQA Intended for teacher use only

Deforestation is the removal of trees in a selected area to make use of the land for humanity to use.

██████ has had a fair amount of native trees and plants removed for the development of infrastructure and roads, the Biosphere and atmosphere has been affected because this has resulted in less carbon dioxide being absorbed by trees and more of it going into the atmosphere.

Another area of the biosphere that is being affected is the removal of the habitats that the birds and insects live in.

This has happened because the trees and plants provide food and housing for the animals and when they are taken away, they have no place to go.

In addition to areas being affected by the trees being taken down is the Māori community because they have lots of connections to the trees and plants throughout their history and have preserved them for generations.

Plants and trees have been responsible for sheltering and supplying their ancestors for many years and losing it all would be disrespectful and be detrimental to their morals and lifestyle.

Another area that is being affected is the sea life in the ██████ harbor because when there's no trees covering the sediment, it can easily be blown away into the waterways.

This has affected the hydrosphere by lowering the quality of the water for the fish to live in, and it has led to the water becoming more shallow over time due to the build of sediment.

Another big area that is being affected by this are the Māori community because a large amount of their culture and ancestry has ties to the land, ocean and creatures that live in it, and every day they start to lose it because of the sediment.