COMPLETE CONCEPT INTEGRATION™ SCIENCE

6 MUST KNOW MAN & THE ENVIRONMENT CONCEPTS

How does deforestation lead to global warming?



Cutting down trees would result in fewer trees to take in carbon dioxide for photosynthesis to make food. Thus, there would be more carbon dioxide, which is a greenhouse gas, accumulated in the surrounding air. This results in more greenhouse gases trapping more heat from the sun, thereby resulting in global warming.



Burning trees down releases carbon dioxide, which is a greenhouse gas, into the surrounding air. This results in more greenhouse gases trapping more heat from the sun, thereby resulting in global warming.

How does reforestation reduce the effects of global warming?



Reforestation results in more trees to take in carbon dioxide for photosynthesis to make food. Thus, there would be less carbon dioxide in the surrounding air, which is a greenhouse gas, trapping less heat from the sun, reducing the effects of global warming.

How does deforestation lead to soil erosion?



Deforestation results in less roots of the trees to hold the soil together. This causes more soil to be exposed directly to the rain, causing more rain water to land onto the soil directly. Thus, more soil would be washed away by the rain, leading to soil erosion.

What are the causes of flooding and their explanations?



Soil Erosion

In the process of soil erosion, the soil would be washed by the rain water into the water bodies (rivers, streams). This decreases the capacity of the river, causing the river to overflow during heavy rainfall, causing floods.



Global warming

An increase in the global temperature causes ice at the cooler regions of the earth to melt. This causes the sea level to rise, leading to flooding at low-lying regions on Earth.

How does acid rain form?



Poisonous gases from factories that are released into the environment dissolve in rain water, falling back to the Earth surface as acid rain.

How does acid rain affect the environment?



Acid rain causes damage to buildings when it reacts with building materials. It also seeps into the soil, and are then absorbed by plants, affecting their growth. Acid rain also flows into water sources such as rivers and streams, increasing the acidity of the water, affecting the organisms (plants and animals) that live in the water.