Hypothesis report

Environment, Pollution

Abstract

A transient experiment using index cards was used to demonstrate outside air pollution. The simple experiment involved the usage of simple day-to-day materials in a bid to find out the levels of air pollution at different areas of the outside wall. Using a close door house as a control, the hypothesis of the experiment was proven. This report highlights the analysis of the experiment.

Introduction

Air pollution is a wide expression practical to all physical that is particulate matter, chemical, and biological instruments that transform the natural features of the atmosphere. Other definitions as well regard physical perturbations for instance light pollution, noise pollution, radiation, heat, and as air pollution. Descriptions usually consist of the phrase detrimental as a mandatory to deem a transformation to the environment as pollution (Edelson, 2002).

Air pollutants are categorised as primary or secondary. A primary air pollutant is one that is emanated straight to the air from a specified source, for example the Carbon monoxide (CO) generated as a by-product of burning; while a secondary air pollutant is generated in the environment via chemical reactions associating to primary air pollutants. The structure of ozone in photochemical smog is an instance of a secondary air pollutant. The atmosphere is a multifaceted, dynamic, and delicate system. Apprehension is mounting about the universal effects of air pollutant emanations, particularly global warming. Stratospheric ozone exhaustion

owing to air pollution has long been acknowledged as a danger to human health (Gay, 2001).

Air pollution originates from many diverse sources for example factories, power plants, dry cleaners, cars, buses, trucks and even windblown dust and wildfires. It can threaten the welfare of humans, (Oliver, 2006) trees, lakes, crops, and animals, in addition to damaging the ozone layer and buildings. That is why though simple, this experiment is vital.

The materials used were:

- 6 Index cards
- Masking tape
- Petroleum jelly
- Camera
- A note book
- Felt-tipped pen

Procedure

Out of the six index cards, three were smeared with a thin layer of petroleum jelly initially and labelled a, b, and c respectively. The card labelled “ a” was used as control and taped on a wall inside a house. The card b was taped on a busy road while card c was taped near a railway station. The cards were observed daily over a period of 4 weeks. Duplicates were made for the cards. Notes of the amount of particulate matter that gathered on each were made.

Discussion and Conclusion

From the results above it is evident that there are a lot of pollutants within the outside environment. The card b and B1 were taken from a busy street.

Within the four weeks, the colour of the index cards becomes darker from initial light colour. This only shows how polluted the environment can be from motor vehicles. The only logical explanation could be from the carbon monoxide emission from the exhaust pipes of vehicles. As from card c and C1, the results were equally the same and the conclusion is the CO emissions from the trains. The control should contradicting results from the other cards since it was taped within the walls of closed house. Therefore, air pollution was minimal compared to the other cards.

In conclusion, Air pollution, equally indoor and outdoor, is an important grounds of health problems worldwide. Urban and rural outdoor atmospheres have infectious, irritating chemical toxins that can decrease the eminence of life and cause disease. Inhaled air pollution is absorbed at the nose, throat, and lungs. The exposed airway permits dangerous pollutants to penetrate the body and all tissues are eventually exposed. That is why this issue is important and should not be taken lightly.

References

Edelson, Ed. (2002). Clean Air. New York: Chelsea House.

Gay, K. (2001). Air Pollution. New York: F. Watts.

Oliver, D. J. (2006). Killer Air Plagues. Bay Area: Oakland Tribune.