

Name: _____ Period: ____ Date: _____

Environmental Science

#7-1: Air Quality Index (AQI)

Introduction

Air pollution is a serious, widespread environmental issue that directly impacts human health. Exposure to air pollution can cause children to develop asthma as well as causing adults to develop lung cancer and emphysema, among other illnesses. It can cause an increase in sick days in children and adults, resulting in lowered productivity, and it can actually decrease your overall lifespan. Experts can track air pollution by using sensors to measure particulate matter (PM) and other pollutants in the air to calculate the Air Quality Index, or AQI. The higher the AQI, the greater the amount of pollution and the worse the air quality. An AQI of less than 50 is considered “Good”, while an AQI of 100 or greater is considered unhealthy. For more information, see: **airnow.gov**

In this activity, we will perform a “longitudinal study” over 30 days by recording the AQI and weather conditions in Kent. Then, we’ll compare our city’s AQI to other cities around the world.

Purpose

To record the Air Quality Index of Kent, Ohio for 30 days.

Prediction

Do you think Kent will have “Good”, “Moderate”, or “Unhealthy” air quality? Explain.

Procedure

1. Once per day for 30 days, go to **bit.ly/kentaqi** and record the AQI, dominant pollutant, and overall weather in the table on the back of this worksheet.

Questions – *only answer these questions after recording data for 30 days!*

1. Was your initial prediction correct? Why or why not?
2. What pattern, if any, did you notice between each day’s air quality and the weather that day? Why do you think this might have happened?
3. Look at the historical air quality data for Akron at **bit.ly/akronaqi**. What month in 2019 had the most days with the worst air quality? Why do you think this might have happened?
4. Look at the “Air Quality Rankings” at **bit.ly/akronaqi**. What city currently has the worst air quality reading in the world? Why do you think that might be the case?

Data

[illegible]

