

## Geography: Section 3 - Activity Sheet

# Results and Assessment: Air Pollution around Our School

## Activity One

Last lesson your group carried out fieldwork to identify the causes of air pollution around your school. Each pair completed a different piece of fieldwork, where one pair performed a traffic count and the other a walk around the school.

Use the questions to find out what the other pair in your group did. Use the space under each question to take notes. Be ready to report to the teacher or class.

<b>What Did You Do?</b>	<b>How did you do it?</b>	<b>What did you find out?</b> Write down at least 3 things

## Activity Two

Go to the website and choose the **Geography Section 3: Results** page. Scroll to the bottom and click **View the results of your School Travel Survey here** link.

Study the information shown on the graphs and answer the questions below.

**Remember to select your school/class/pollutant from the left hand side of the page.**

Study the information shown on the graphs and answer the questions below.

- (a) Which mode of transport is most used by your class? \_\_\_\_\_  
Percentage \_\_\_\_\_
- (b) Which mode of transport is least used by your class? \_\_\_\_\_  
Percentage \_\_\_\_\_
- (c) Which mode of transport produces the **highest**:  
PM10 emissions \_\_\_\_\_ Nitrogen Dioxide emissions \_\_\_\_\_
- (d) Which mode of transport produces the **lowest**:  
PM10 emissions \_\_\_\_\_ Nitrogen Dioxide emissions \_\_\_\_\_
- (e) Click on **PM10 Map tab** at the top of the page and answer the questions below.  
Which schools, rural or urban, have the poorest air quality? \_\_\_\_\_  
Which schools, rural or urban have the best air quality? \_\_\_\_\_

## Activity Three

For the last two weeks, an air quality sensor has been located at the drop off/pick up point outside your school. This sensor has collected the levels of nitrogen dioxide outside your school throughout the day.

Go to the website and choose the **Geography Section 3: Results** page again. Scroll to the bottom and click **View and Assess your School's Results** link.

Click on **Day of Week tab** at the top of the page and study the information shown and answer the questions below.

**Remember to select your school from the left hand side of the page.**

(a) Which day of the week had the **highest daily average** levels of PM10?

Day \_\_\_\_\_ PM10 \_\_\_\_\_

(b) Which day of the week had the **lowest daily average** levels of PM10?

Day \_\_\_\_\_ PM10 \_\_\_\_\_

***Hint:** Hold the mouse over each bar to give you a precise reading if you are having trouble reading the graph.*

(c) Looking at the hourly averages at what time was the highest level of PM10 and how much was it?

\_\_\_\_\_

(d) What do you notice about the morning drop off levels (yellow bars) compared with the other bars on the graph?

\_\_\_\_\_

\_\_\_\_\_

(e) What do you notice about the afternoon pick up levels (brown bars) compared with the other bars on the graph?

\_\_\_\_\_

\_\_\_\_\_

(f) Are there any times when the PM10 averages are higher or lower than you expected?

\_\_\_\_\_

\_\_\_\_\_

## Activity Four

Click on **Traffic Survey tab** at the top of the page and study the information shown to answer the questions below.

**Remember to select your school from the left hand side of the page.**

- (a) Look at the bar graph for **vehicle counts**.  
Rank the vehicle counts starting with the highest.

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Look at the pie chart for **vehicle counts**.

- (b) What vehicle type was most counted? \_\_\_\_\_ Percentage \_\_\_\_\_  
(c) What vehicle types was least counted? \_\_\_\_\_ Percentage \_\_\_\_\_

Look at the bar graph for **five minute averages**.

- (d) What time recorded the highest emission levels? \_\_\_\_\_  
Emission level \_\_\_\_\_  
(e) Are there times when the emissions recorded (blue bars) are higher than the level given by the traffic count?

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- (f) What other factors could be affecting the level of nitrogen dioxide at these times?

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