

Emissions in your community

Activity 5 - Counting the cars investigation

We know emissions from motor vehicles can affect the air we breathe and the environment we live in. These emissions include CO₂ and NO_x which can be harmful to our health and the environment. Even though our air might look clean, there are many people who rely on their motor vehicles as their only way of getting around.

To start our investigation, we are going to create a tally to show how many vehicles pass in front of school in the middle of the day for 15 minutes. Towards the end of the day, we'll do the same investigation and compare the results.

If you're not doing this activity at school, get a guardian to accompany you to a busier road near where you are. Where possible, stay on a footpath and stay safe when doing this investigation.

Before we start

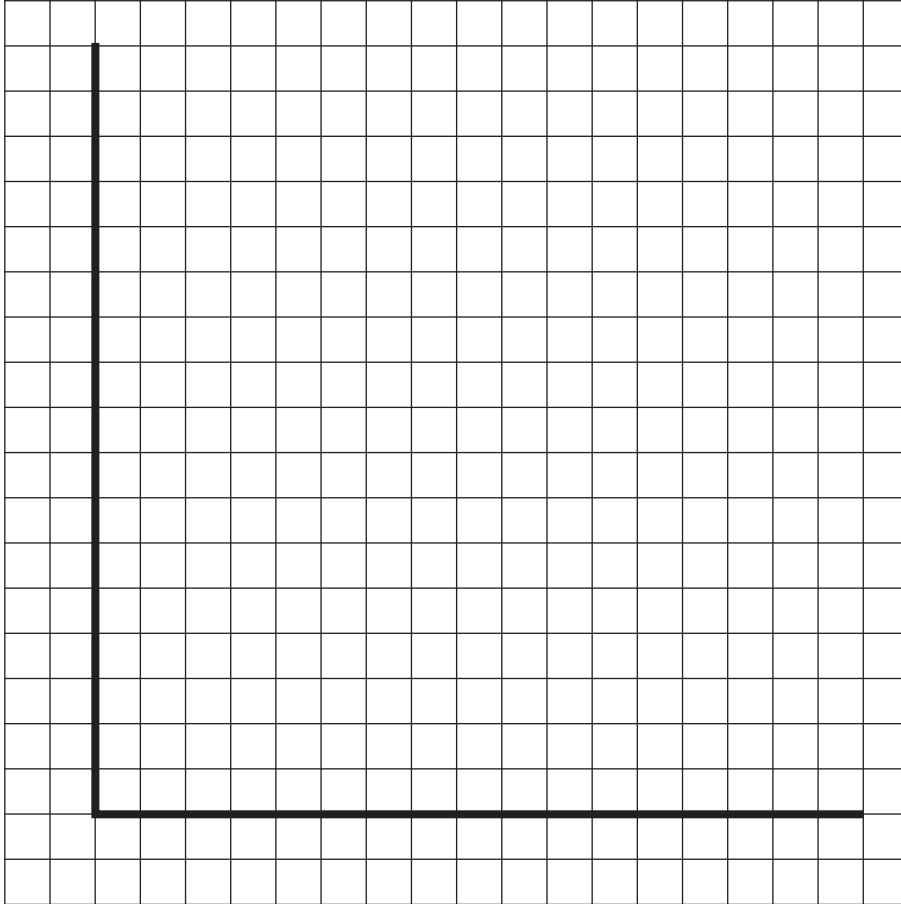
As we conduct the investigation, what do you think the results are going to reveal?

| Time of the day | Amount of vehicles (cars, motorbikes, vans, buses) |
|---------------------------------------|--|
| Middle of the day (for 15 minutes) | |
| End of the day (for 15 minutes) | |

Plot the data

When conducting investigations, it is important to take the data you collected and display it in a way which shows the main results or findings in a clear way.

To compare the results you gathered in your tally chart, place the information in the bar graph below:



Hint: remember the independent variable goes on the x axis

Checklist:

- Title
- Labelled Axis
- Units
- Spaces in between bars
- Used a ruler to draw lines
- Scale is appropriate and consistent

Answer the following questions:

What was similar or different between the two times of the day?

How do you think these results show the impact of emissions in your own neighbourhood?

From this investigation, what do you think motorists can do to reduce emissions in our neighbourhood?



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