

Green-Schools Travel

- Traffic Count Survey

Aim

This workshop is intended on identifying the type of traffic passing the school and the number of people travelling in each mode of transport. The workshop can be done at different times of the day to see if there is a difference in the type of traffic passing the school. The results can be discussed as a group, after the data is collected.

Suitability

All Schools

Location

Outside, within the school grounds.

Tools

- Traffic Count survey sheets:
 - Traffic Count Survey - Recording Sheet.pdf*
 - Traffic Count Survey - Chart Sheet.pdf*
 - Traffic Count Survey - Results.pdf*
- Clipboard with recording sheet attached
- Pencils
- Appropriate outdoor clothing
- Hi-vis jackets (optional)

Teams

Three students are required per traffic-counting team.

1. Someone to identify the type of vehicle (identifier)
2. Someone to count the number of people travelling in the vehicle (counter)
3. Someone to record the information on the recording sheet (recorder)

If the workshop is conducted with a class, you can split the class into different teams. Each team can take turns at recording the type of traffic at various times throughout the day or in 5-minute, 10-minute or 15-minute intervals.

Curriculum strands addressed

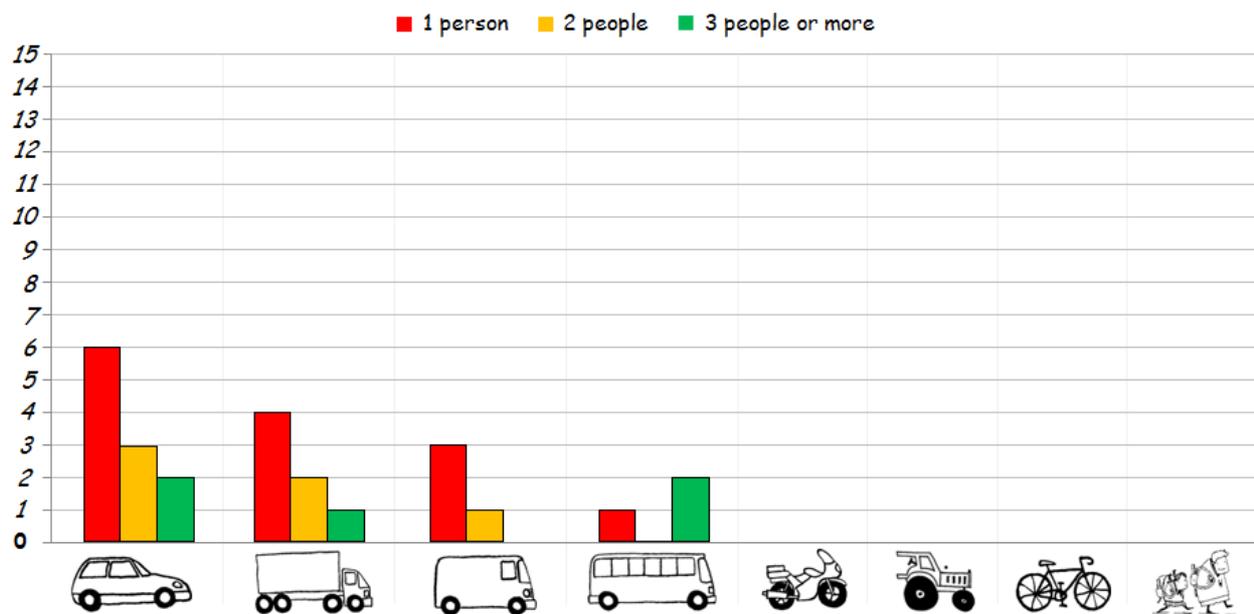
- Safety and protection (SPHE)
- Maps, globes and graphical skills / Geographical investigation skills / Human environments (SESE)
- Measures (Mathematics)
- Data (Mathematics)

Method:

1. In the classroom, divide the students into the teams and instruct them on their team role.
2. Outside, position the students in a safe position where they can see the traffic passing the school.
3. The identifier chooses the vehicle to be surveyed i.e. car, truck, etc. He/she should call out "car" or "truck" (and the colour, if there is lots of traffic) so the counter and recorder know which vehicle is being recorded to look out for.
4. The counter counts the number of people travelling in the vehicle and tells the recorder.
5. The recorder places a tick for each vehicle surveyed in the relevant box on the *Traffic Count Survey - Recording Sheet*. e.g.

Traffic type	Number of people travelling in vehicle		
	1	2	3 or more
 Cars	✓✓✓✓✓✓	✓✓✓	✓✓
 Lorries/Trucks	✓✓✓✓	✓✓	✓
 Vans	✓✓✓	✓	
 Buses	✓		✓✓

6. Back in the classroom, fill out the results on the chart sheet: *Traffic Count Survey - Chart Sheet*. Enter the details of your school, date and time. Fill out the numbers on the vertical axis of the chart – this will depend on how busy the road was and how many vehicles you counted. Draw in bar charts for each mode of transport. e.g.



7. You can use the *Traffic Count Survey - Results* sheet to fill out your findings. Place all your results on the Green-Schools notice board.

Discussion:

Discuss the following with the students:

(Note: This can also be done in the classroom before starting the survey)

- What was the most common mode of transport?
- Is there more traffic at some times of the day than others?
- When is the busiest time for traffic on the road - Why?
- Where is the traffic going?
- What are the effects of heavy traffic on safety/the local environment?
- What would be the effect of less traffic around the school?
- What potential impact does one-person-per-car have?
- What safety issues are there around the school and how could these be addressed? e.g. Speed humps, signage, pelican crossing, traffic lights, etc.

Go further:

- Calculate the amount of traffic passing the school over one hour. i.e. take the tally from your
 - (i) 15-minute period and multiply by 4
 - (ii) 10-minute period and multiply by 6
 - (iii) 5-minute period and multiply by 12
- Calculate the number of vehicles that had one occupant only, as a percentage of the total amount of vehicles
- Create a pie chart to show the percentage of vehicles that had occupancy of 1, 2 and 3-or-more people
- Create frequency bar charts to represent the traffic volume at different times of the day
- A typical car emits about 170g of carbon dioxide (CO₂) for every kilometre it travels. Calculate how many tonnes of carbon dioxide are emitted in one hour in a one kilometre stretch of road outside the school, using the results of the traffic counts.

**Don't forget to place all your results on the
Green-Schools Notice Board!**