



# Sugar Guzzlers

It was recently reported that an average New Zealand child guzzles almost 6kg of sugar a year in sweetened drinks. Is this true? Can you imagine what 6kg of sugar would look like?

## Problem

Formulate a problem to solve: an example of a problem could be: *Is the amount of sugar drank in a year by an average student in your class or CensusAtSchool likely to be 6kg?*

## Plan



1. How would you answer the question now, before you gather the data? Justify your answer.
2. How are you going to work out the amount of sugar your class or a sample from CensusAtSchool drinks in a year?
3. Can you remember all the drinks you have had this year?
4. What do you drink in a typical day? Was yesterday typical?
- 5a. How many people are you going to ask? 5b. Where are you going to obtain your data?
6. Where are you going to obtain your data?  
So what is your plan? How are you going to work out what the average amount of sugar your class or the sample drinks?
7. Write down your plan. Remember to include the reasons you think this is a good plan.

## Data



How are you going to record your data? Statisticians often use a table like this:

Cups/glasses of each type of drink I had yesterday	Water	Fruit juice	Cordial	Fizzy Drink	Diet Fizzy drink	Sports drinks	Milk-not flavoured	Smoothie or shake	Tea or Coffee	Hot Chocolate or Milo	Other	Total
student												

Carry out your sampling and data recording

## Analysis



Have a look at the data you have collected.

1. What do you notice?
2. Are there any students who stand out because they drink a lot or a little of one kind of drink?
3. How many drinks were consumed in total?
4. What is the most common drink? Draw a graph to show this and the rest of data from the table.
5. What would predict the amount of sugar drunk by an average student to be now?
6. Find your row in the table. Do you seem normal?
7. Draw a graph or graphs to show the number of drinks each student drank. Can you show this in a more summarised way?
8. How would you describe the spread of the data?
9. What is the 'average' number of drinks a student drank? Give a reason you why think this.

Here is some information about the amount of sugar in each type of drink.

10. How are you going to use this to work out the amount of sugar an average student drank?
11. Why do you think the sugar per cup of Tea/Coffee and Hot Chocolate/Milo is incomplete?
12. What values are you going to assume for these types of drinks. A teaspoon of sugar is about 4g.

	Water	Fruit juice	Cordial	Fizzy drink	Diet fizzy drink	Sports drink	Milk -not flavoured	Smoothie or shake	Tea or coffee	Hot Chocolate or Milo	Other	TOTAL yesterday	TOTAL for year
Sugar in grams	0	26	25	27	0	24	11*	22	0+ <sub>-</sub>	4+ <sub>-</sub> **	20***		
student												g	kg

13. Graph this information. You may have to draw several graphs to show all the information.
14. How many days does it take you to drink 6kgs of sugar? 15. Are you in the middle clump/range?

In your books record your thoughts about your graphs using these sentence starters:

I noticed that...

I wondered if... (What do you wish you had information on?)

## Conclusion

In your books answer the question in the problem section: Is the amount of sugar drunk in a year by an average student in your class or CensusAtSchool likely to be 6kg? Remember to give reasons based on what you found out in your investigation.