



Investigation 5 iFlakes

A primary school parent group is planning to set up a breakfast club. They are looking for three nutritious cereals to serve.

Survey your class to find the cereals that students your age like to eat.

Investigate the nutritional value of at least seven cereals (including iFlakes) by examining the percentages of protein, fat, carbohydrate, sugar and fibre they contain.

Based on your findings, recommend three cereals that should be served at the breakfast club. Should iFlakes be included?



Topics

Before you start the Investigation you need to know...

- NA16** Place value to thousandths p62
- NA22** Percentages..... p74
- NA23** Percentages using a calculator..... p76
- SP2** Interpreting data p122

- SP3** Dot plots..... p124
- SP4** Discrete data p126
- SP5** Column graphs p128

Understanding the Investigation

I Read and plan.

Make sure you understand the meanings of: *breakfast club*, *nutritious*, *nutritional value*, *protein*, *fat*, *carbohydrate*, *sugar*, *fibre*, *recommendation*, *ingredient*, *interpret* and *analyse*.

Read and discuss the rubric.

Download your Investigation plan. This will help you with the organisation and understanding of the Investigation.

Teacher note

- Comprehensive lesson notes, suggestions and resources are available in *iMaths 5 Teacher Book*.
- The Data page and Investigation plan for this Investigation can be downloaded from imathsonline.com.au.

Materials



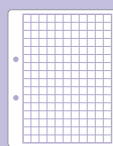
Internet access



Data page 1



Calculator



Graph paper



6 different cereal boxes per group

Using maths

2 Collect data and cereal boxes.

Survey the students in your class to collect data on their favourite breakfast cereals. Show the results of your survey on a dot plot.

In groups, select six different cereals to investigate and collect the boxes.

3 Study the nutritional information.

Look at the nutritional information on **Data page 1**, *iFlakes nutritional values* (p163).

Locate the same nutritional information on each of the cereal boxes you collected. Look at the amounts per 100 g of each ingredient. How does this relate to percentages?

4 Record your information.

Construct a table to record information for each of the seven cereals, including iFlakes. Record the percentage per 100 g of protein, fat, carbohydrate, sugar and fibre for each cereal.

5 Graph your data.

Use the data from your table to construct five different column graphs. One column graph will show the percentages of protein for each cereal. The other four column graphs will show percentages of fat, carbohydrate, sugar and fibre.

6 Interpret your data.

Analyse the data and decide which cereal has the highest nutritional value.

Choose the best three cereals to be served at the breakfast club.

Reasoning and reporting

7 Display your tables and graphs.

Show the class your tables and graphs.

Justify your choice of cereals. You must be able to explain the reasons for your recommendation.

imathskids.com.au



Go to **imathskids.com.au** – the Investigation 5 area contains the Investigation plan, websites and Data page that you need to complete this Investigation.

Nutritional information (amounts per 100 g)					
Cereal	Protein	Fat	Carbohydrate	Sugar	Fibre

Inquiry

Look more closely at the information on one of your cereal boxes.

What other types of nutritional information are included?

Some ingredients occur in very small amounts.

Find out what each of these different symbols mean: mg, μ g and kJ.