Sampling Snacks

You need

★ apples

★ classmates

a calculator

TECHNOLOGY

Food technologists do a lot of trialling before they are satisfied with a new product. They experiment with different ingredients until the product has the attributes (for example, taste and texture) that they want. They also consider health regulations and the costs of making and packaging the product.

Activity One

The students in Mr Blake's class are discussing biscuit samples being offered to shoppers at a local supermarket.



Data detectives use PPDAC www.censusatschool.org.nz

Are you a Data Detective?

The class decides to investigate Tom's question, following the steps in the PPDAC cycle.

The next day, Mr Blake brings four packets of different plain biscuits. Five blindfolded students try a biscuit from each packet and rate it on a scale of 1 to 5, with 5 as the best.



The class then looks at the data:

Biscuit	Taster 1	Taster 2	Taster 3	Taster 4	Taster 5
Sample A	4	5	5	3	5
Sample B	3	5	3	2	4
Sample C	1	3	2	1	2
Sample D	5	4	3	3	4



True or false?

i.





ii.

At least one person really likes each biscuit.

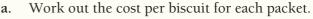






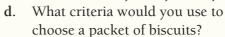
Mr Blake gives his students this table:

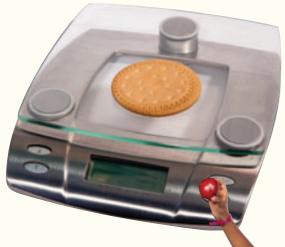
		Cost of packet	Number in packet	Cost per biscuit
Sample A	Grady's Round Wine	\$2.80	40	
Sample B	Saver Plain Round	\$1.50	50	
Sample C	Budget Snacker (plain wine)	\$2.10	30	
Sample D	Grady's Ovals	\$2.40	30	



b. Each packet weighs 250 grams(g). What does a biscuit of each type weigh?

c. Is the cost per biscuit the best way to work out value for money? Why or why not?





Discuss which steps of the PPDAC cycle the students used in this investigation.

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Activity Two

As a class, investigate several varieties of apples, based on these attributes:

- i. crispness
- ii. sweetness
- iii. juiciness.

Before you start your investigation, discuss how you will apply the PPDAC cycle to it.

2.

Based on the findings, which apple(s) would you recommend for:

- a. someone with a toothache, who can't eat crisp apples?
- **b.** a recipe that needs firm, sour apples?
- c. someone who likes sweet apples?



Conducting statistical investigations