

Investigating the maths inside:

Prawns for profit

Activity 5

Pop-up prawn pavilion



Why start a small business or run a market stall?

# Introduction: Your goal!

You have just got your car licence and would like to save $5 000 to buy a second-hand car.

You have a great idea for a market stall that sells one delicious treat: barbecued black tiger prawns on a skewer (prawns-on-a-stick). In this activity, you will investigate the financial mathematics of setting up and running your market stall, to save the money you require for the car.

## The prawns-on-a-stick recipe

## Search for possible recipes or create your own.

## Find the cost of each of the ingredients.

## If 100 sticks are made, how much the ingredients will cost per stick?

# Financial viability study

## What is involved?

## There are a large number of things to consider when setting up a market stall. For example, some markets provide shelter and electricity while others don’t. The uncooked prawns will need to be kept cold during the day until they are cooked.

Have a class discussion to brainstorm all of the things that need to be considered when setting up and running the stall. Some necessary information may come from a local market, or from a market website such as the Concord Farmers’ Market (<http://www.concordfarmersmarket.com.au/registration.html)>. The discussion should include the costs involved, such as start-up funding and the fixed and variable costs of running the stall.

## What will it cost?

After the discussion, make a list of all the fixed and variable costs, and the approximate amounts of money involved.

Use a spreadsheet to find the total of the fixed costs and the variable costs.

|  |  |  |  |
| --- | --- | --- | --- |
| **Fixed costs** | | **Variable costs** | |
| Shelter |  | Prawns |  |
| Refrigeration |  | Other ingredients |  |
| Rent |  | Ice |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **Total** |  | **Total** |  |

## What is a realistic selling price?

What do you think is a realistic selling price? Explain.

Use a spreadsheet and create graphs to investigate the following scenarios:

* How much money will you lose if you don’t sell any sticks at all?
* If you sell 50 sticks, will there be a profit or a loss? How much?
* If you sell all 100 sticks, will there be a profit or a loss? How much?
* What is the break-even point?
* If you sell all 100 sticks every time you run the market stall, how long will it take for the profits to cover the money you spent on the fixed costs? How long will it take to reach $5000?

Are your answers reasonable?

* Do you need to adjust the selling price? Try some different prices and assess the impact.
* Is there some other way you could increase the profit?

## Borrowing money to get started

Imagine you have very limited savings and you need to borrow some money to get started. You are going to try borrowing from your parents, but you need to convince them that this is a viable business. Use your spreadsheet and graphs to convince your parents that this is a viable business venture.