

## FOOD STALL (LEVEL 3)

<b>Description</b>	Learners will plan and run their food stalls and determine how much profit they make from them. They will use and apply concepts such as operations on fractions, rounding numbers off, averages of numbers, and making and solving linear equations with one variable to do so.
<b>Leading question</b>	How much profit can I make from a food stall?
<b>Subjects covered</b>	Math, English, Art and Design
<b>Total time required</b>	40-60 min a day for 4 days
<b>Resources required</b>	Raw ingredients to make food items (as available), plates/ bowls and spoons, paper, and colours ( <i>optional</i> )
<b>Learning outcomes:</b>	<p>By the end of this project, learners will be able to:</p> <p>Knowledge-Based Outcomes:</p> <ol style="list-style-type: none"> <li>1. Multiply fractions with whole numbers.</li> <li>2. Calculate Cost Price, Selling Price and Profit.</li> <li>3. Create linear equations with one variable.</li> <li>4. Calculate the average of the given quantities.</li> <li>5. Round numbers off to the nearest 10.</li> <li>6. Perform operations related to money.</li> </ol> <p>21<sup>st</sup> Century Skill Outcomes:</p> <ol style="list-style-type: none"> <li>1. Think creatively while making recipes based on available ingredients and designing food stalls.</li> <li>2. Collaborate effectively while seeking feedback and input on pricing.</li> <li>3. Communicate effectively while writing recipes and conducting surveys.</li> <li>4. Think critically while calculating costs, projecting profits, and comparing target profits versus actual profits.</li> </ol>
<b>Previous Learning</b>	Adding, subtracting and multiplying whole numbers Representing fractions pictorially and numerically
<b>Supervision required</b>	Medium

### Day 1 -

Today, you will start working on your business plans and deciding the theme of your food stall, its name, and your customers.

Time	Activity and Description
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15 minutes	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>- Have you ever eaten from a food stall? What items?</li> <li>- What is your favourite item to eat from a food stall?</li> <li>- If you had your food stall, what kind of food would you sell?</li> </ul> <p>Think and share:</p> <ul style="list-style-type: none"> <li>- How much money do you think food stall owners make in a day? <i>(If needed, prompt learners to think about how much they charge per plate and how many plates of food they sell each day.)</i></li> <li>- How much money do you think they spend to run their food stalls? <i>(If needed, prompt learners to think about the money spent to buy ingredients, utensils etc.)</i></li> </ul> <p>A food stall is an example of a <b>business</b>. Businesses provide things to people for money.</p> <ul style="list-style-type: none"> <li>- A successful business brings more money than it spends. When this happens, it is said to make a <b>profit</b>.</li> <li>- The <b>Leading Question</b> that we will answer in this project is: How much profit can I make from a food stall business?</li> <li>- To answer this question, we will plan and set up our food stalls and calculate how much money we earn from them!</li> <li>- To make sure that we make as much profit as possible, we need to plan our business carefully. Such a plan made to ensure businesses are successful is called a <b>business plan</b>!</li> <li>- Think and list all the things to consider while preparing your business plan for the food stall.</li> </ul> <p><b>Note:</b> Add any missing questions to consider from the image shown (table in <b>Appendix 1</b>).</p>
10 minutes	<p><b>Customers</b></p> <p>Your customers can be friends/ family/ community members/ school staff <i>(suggest possible customers based on access)</i>.</p> <p>To make high profits, you need to make sure that as many customers as possible buy items from their food stalls.</p> <p>Think about these pointers and update your business plans:</p> <ul style="list-style-type: none"> <li>- Who will be your customers?</li> <li>- How many customers do you want to bring to your food stall?</li> </ul>
10 minutes	<p><b>Theme</b></p> <p>Now, we will think about what food items we can make and sell!</p> <p><b>Note:</b> Share the table shown below with the learners. Add or replace any ingredient based on availability.</p>

Categories
Q1. Who are our customers?
Q2. What food items do we want to sell?
Q3. What do we want to name our food stall?
Q4. How much money will we need to run our food stall?
Q5. What should be our prices?
Q7. How much profit are we targeting?
How do we know if customers liked our food?

	<i>Cucumber</i>	<i>Onion</i>	<i>Carrot</i>	<i>Yoghurt</i>	<i>Chilly</i>
	<i>Bread</i>	<i>Tomato</i>	<i>Lemon</i>	<i>Bean Sprouts</i>	<i>Salt &amp; Pepper</i>
	<p>You can plan to include as many ingredients from the table as you like in your recipes but you cannot cook any ingredients to make your food items.</p> <ul style="list-style-type: none"> <li>- How will you choose what food items to sell based on who your customers are? <i>(If needed, prompt learners to think about the kind of foods that their target customers would enjoy)</i></li> <li>- Based on this, decide one food item that you would like to sell and the ingredients you need for it. <i>(If needed, give them some examples of possible food items, such as: Moong Bean Salad: Moong Bean sprouts, cucumber, onion, tomato, coriander, green chilly, salt, lemon, pepper)</i></li> </ul> <p>Once done, fill in the food items you decide to sell in your business plans.</p>				
5 minutes	<p><b>Name</b> Decide on an exciting name for your food stall and write it in your business plan!</p> <p><b>Note:</b> Encourage learners to think of a name that would make their customers want to try their food, and match the kind of food items they will sell. <i>If needed, give them examples such as Salad Station and Sandwich Club.</i></p>				
<b>At-home activities</b>	<ul style="list-style-type: none"> <li>- Using a sample recipe (<b>Appendix 2</b>), write a recipe that includes: <ul style="list-style-type: none"> <li>- all the ingredients and their quantities, and</li> <li>- the steps to follow.</li> </ul> </li> <li>- Make some fake currency! Your customers will use this to buy food at your food stall. <ul style="list-style-type: none"> <li>- Decide 2 denominations of currency notes that they will make (For example, \$1 and \$5).</li> <li>- Estimate the total number of customers.</li> <li>- Decide the amount of money each customer should receive.</li> <li>- Make an equal number of each denomination of currency notes in such a way that it adds up to the total money the customers will spend.</li> </ul> </li> </ul>				

## Day 2

Today, you will decide the prices for food items considering their costs and how much profit you want to make.

Time	Activity and Description
10 minutes	<p><b>Cost Price, Selling Price and Profit</b> How will decide your prices to make sure that you make a profit?</p> <p>Profit = Selling Price - Cost Price.</p> <ul style="list-style-type: none"> <li>- Cost Price is the money you will spend on making one plate of each food item.</li> </ul>

	<ul style="list-style-type: none"> <li>- Selling Price is the money you will charge your customers for each food item.</li> </ul> <p><b>Note:</b> Use the example given below to explain how Cost Price, Selling Price and Profit are related.</p> <ul style="list-style-type: none"> <li>- If you buy a pencil for \$5 (Cost Price) and sell it for \$10 (Selling Price), you make \$10 - \$5 = 45 (Profit).</li> <li>- If you buy a pencil for \$5 (Cost Price) and sell it for \$5 (Selling Price), you make \$5 - \$5 = \$0 (No Profit).</li> <li>- If you buy a pencil for \$10 (Cost Price) and sell it for \$5 (Selling Price), you make \$5 - \$10 = -\$5 (Loss).</li> </ul>																																
15 minutes	<p><b>Calculating Costs</b></p> <p>To decide what the Selling Price of a food item should be, you need to know its Cost Price and the Profit you can make from it.</p> <p>First, think and share how you will calculate the Cost Price of each food item.</p> <p><b>Note:</b> Explain that the Cost Price would include the costs of ingredients and materials such as plates and spoons. Once done, share the costs of ingredients that learners used in their recipes as shown below.</p> <ul style="list-style-type: none"> <li>- Change units if needed.</li> <li>- Inform them that salt and pepper will be provided at no cost (for ease of calculation).</li> </ul> <table border="1"> <thead> <tr> <th>Ingredient</th> <th>Cost</th> <th>Ingredient</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Cucumber</td> <td>\$5 per kg (5 pieces)</td> <td>Bread</td> <td>\$2 per packet (10 slices)</td> </tr> <tr> <td>Onion</td> <td>\$5 per kg (5 pieces)</td> <td>Tomato</td> <td>\$5 per kg (5 pieces)</td> </tr> <tr> <td>Carrot</td> <td>\$5 per piece (5 pieces)</td> <td>Lemon</td> <td>\$1 per piece</td> </tr> <tr> <td>Yoghurt</td> <td>\$3 per cup</td> <td>Moong Bean Sprouts</td> <td>\$3 per cup</td> </tr> <tr> <td>Chilly</td> <td>\$5 per 100 g (5 pieces)</td> <td>Salt &amp; Pepper</td> <td>Free</td> </tr> <tr> <td>Bowl/ Plate</td> <td>\$1 per piece</td> <td>Spoon</td> <td>₹1 per item</td> </tr> </tbody> </table> <p>Explain how to calculate the cost per recipe using the example of Moong Bean Salad.</p> <table border="1"> <thead> <tr> <th>Ingredient</th> <th>Quantity</th> <th>Cost Per Unit</th> <th>Cost for Recipe</th> </tr> </thead> </table>	Ingredient	Cost	Ingredient	Cost	Cucumber	\$5 per kg (5 pieces)	Bread	\$2 per packet (10 slices)	Onion	\$5 per kg (5 pieces)	Tomato	\$5 per kg (5 pieces)	Carrot	\$5 per piece (5 pieces)	Lemon	\$1 per piece	Yoghurt	\$3 per cup	Moong Bean Sprouts	\$3 per cup	Chilly	\$5 per 100 g (5 pieces)	Salt & Pepper	Free	Bowl/ Plate	\$1 per piece	Spoon	₹1 per item	Ingredient	Quantity	Cost Per Unit	Cost for Recipe
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Moong Bean sprouts	1 cup	\$3 per cup	$1 \times 3 = \$3$
Cucumber	$\frac{1}{4}$ th of a cucumber	$\frac{5}{5} = \$1$ each	$\frac{1}{4} \times 1 = \$0.25$
Tomato	$\frac{1}{2}$ of a tomato	$\frac{5}{5} = \$1$ each	$\frac{1}{2} \times 1 = \$0.5$
Onion	$\frac{1}{4}$ th of an onion	$\frac{5}{5} = \$1$ each	$\frac{1}{4} \times 1 = \$0.25$
Lemon	$\frac{1}{2}$ of a lemon	\$1 each	$\frac{1}{2} \times 1 = \$0.5$
Bowl	1	\$1 per item	$1 \times 1 = \$1$
Spoon	1	\$1 per item	$1 \times 1 = \$1$
Cost Price			$3 + 0.25 + 0.5 + 0.25 + 0.5 + 1 + 1 = ₹5.5$

Learners calculate the Cost Price per serving of each food item and fill in their business plans.

**Tip:** If needed, explain how to reduce fractions to the lowest denominator, as shown.

$$\frac{1}{4} \times 8$$

$$= \frac{1}{4} \times 4 \times 2$$

$$= 1 \times 2$$

$$= 2$$

15 minutes

### Deciding Prices

Now that you know your cost per recipe, how will you decide the price?

If Profit = Selling Price - Cost Price, Selling Price = Cost Price + Profit

This means that to decide the Selling Price of each food item, we need to decide how much Profit we want to make when we sell it.

**Note:** Use the example of Moong Bean Salad to support the learners:

Selling Price = Cost Price (\$5.5) + Profit (I want to make \$1)

Selling Price = \$6.5

Decide the Profit they want to make on each food item and calculate Selling Prices.

**Tip:** To challenge learners, get them to round prices off to the nearest 5 or 10 using the steps below:

- Look at the last digit of the Selling Price.
- If it is between 1 and 4, round off to the previous 10.
- If it is between 5 and 9, round off to the next 10.

<b>At-home activities</b>	<p>Interview at least 5 of your target customers and understand what they are willing to pay for your food item.</p> <p>You can give three Selling Price options for each food item:</p> <ul style="list-style-type: none"> <li>- One less than the Selling Price</li> <li>- One equal to the Selling Price</li> <li>- One greater than the Selling Price.</li> </ul> <p>Example: How much should a plate of Moong Bean Salad cost? A. \$5 (<i>\$1.5 lower than the Selling Price</i>) B. \$6.5 (<i>same as the Selling Price</i>) C. \$8 (<i>\$1.5 greater than the rounded-off Selling Price</i>)</p> <p><b>Note:</b> Share the format below to help them collect data.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Question</th> <th style="width: 10%;">Ans 1</th> <th style="width: 10%;">Ans 2</th> <th style="width: 10%;">Ans 3</th> <th style="width: 10%;">Ans 4</th> <th style="width: 10%;">Ans 5</th> </tr> </thead> <tbody> <tr> <td>How much should a plate of Moong Bean Salad cost? A. \$5 B. \$6.5 C. \$8</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Question	Ans 1	Ans 2	Ans 3	Ans 4	Ans 5	How much should a plate of Moong Bean Salad cost? A. \$5 B. \$6.5 C. \$8					
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### Day 3 –

Today, you will adjust prices based on the customer survey, project your profits, and start planning for your food stalls.


Time	Activity and Description												
15 minutes	<p><b>Adjusting Prices Based on Customer Survey</b></p> <ul style="list-style-type: none"> <li>- Based on the survey, will your customers pay the Selling Prices you want them to pay?</li> <li>- If not, how will you adjust them to make sure that your food items sell?</li> </ul> <p>To make sure that food items sell, your price should be less than or equal to the average or middle Selling Price a customer wants to pay.</p> <p><b>Note:</b> Explain how to calculate average Selling Prices using the example of a sample customer survey on Moong Bean Salad shown below.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Question</th> <th style="width: 10%;">Ans 1</th> <th style="width: 10%;">Ans 2</th> <th style="width: 10%;">Ans 3</th> <th style="width: 10%;">Ans 4</th> <th style="width: 10%;">Ans 5</th> </tr> </thead> <tbody> <tr> <td>How much should a plate of Moong Bean Salad cost?</td> <td>\$5</td> <td>\$6.5</td> <td>\$8</td> <td>\$6.5</td> <td>\$5</td> </tr> </tbody> </table>	Question	Ans 1	Ans 2	Ans 3	Ans 4	Ans 5	How much should a plate of Moong Bean Salad cost?	\$5	\$6.5	\$8	\$6.5	\$5
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How much should a plate of Moong Bean Salad cost?	\$5	\$6.5	\$8	\$6.5	\$5								

	<p>A. \$5 B. \$6.5 C. \$8</p> <p><math display="block">\text{Average Selling Price} = \frac{\text{Sum of all answers}}{\text{No of answers}} = \frac{5 + 6.5 + 8 + 6.5 + 5}{5} = \frac{31}{5} = \\$6.2</math></p> <p>Now, calculate average prices based on customer surveys and fill in their business plans. Once done, think and share: How will you adjust your prices based on what customers are willing to pay?</p> <p><b>Note:</b> Explain to them how to adjust prices based on customer survey using the example of Moong Bean Salad shown below:</p> <ul style="list-style-type: none"> <li>- Targeted Selling Price = \$6.5</li> <li>- Average price customers want to pay = \$6.2</li> <li>- Adjusted price = less than or equal to average price = \$6.2</li> </ul> <p>Let us think about how this adjustment of price based on customer surveys can impact our profits.</p> <ul style="list-style-type: none"> <li>- What if the average price of an item is less than your cost? How will you adjust the price? (The adjusted price should be greater than the cost, otherwise, they will make a loss.)</li> <li>- What if the average price is much greater than the price you decided? (They can increase the price because customers are willing to pay more money.)</li> </ul> <p>Calculate your adjusted prices and fill in your business plans.</p> <p><b>Tip:</b> To challenge learners, ask them to think of more ways to reduce their Cost Prices (such as by reducing serving sizes and adjusting recipes accordingly.)</p>
15 minutes	<p><b>Projecting Profits</b> How much profit do you think you will make from your food stall?</p> <p><b>Note:</b> Use the board to explain how to calculate the possible profit by writing a linear equation based on the example of Moong Bean Salad shown below:</p> <ul style="list-style-type: none"> <li>- Profit = Selling Price - Cost Price = Selling Price of 1 food item x number of items sold - Cost Price of 1 food item x number of items sold</li> </ul> <p>Let us call the number of items sold as <math>x</math></p> $= 20 \times x - 18 \times x$ $= 20x - 18x$ $= x(20 - 18)$ $= 2x$ <ul style="list-style-type: none"> <li>- If we sell 10 items, <math>x = 10</math>, profit will be <math>2 \times 10 = ₹20</math></li> </ul>

	<p>- If we sell 20 items, <math>x = 20</math>, profit will be <math>2 \times 20 = ₹40</math></p> <p>Based on this, make linear equations for your food item, calculate the total profits you think you will make, and fill in your business plans.</p> <p><b>Tip:</b> Remind learners that they can decide the value of <math>x</math> based on the number of customers they had targeted to bring to their food stall.</p>
10 minutes	<p><b>Planning for Food Stall</b></p> <p><b>Note:</b> Inform learners about where they will set up their food stalls (<i>their home/ a community area/ an area in the school etc</i>)</p> <p>Think about these questions to plan for your food stall:</p> <ul style="list-style-type: none"> <li>- What materials do you need to set up your food stalls?</li> <li>- How will you set up your food stalls?</li> <li>- How will you decorate your food stalls?</li> <li>- How will you find out if the customers liked your food? (<i>Suggest them to use a simple feedback form, as shown [sample in Appendix 3]</i>).</li> </ul>
<b>At-home activities</b>	<ul style="list-style-type: none"> <li>- Make any decorative items you need for your food stall.</li> <li>- Create the feedback forms.</li> <li>- Think about the different tasks you will need to do to run your food stalls.</li> <li>- Invite your customers to your food stall the next day!</li> <li>- If any questions in your business plan are still unanswered, discuss them with an elder and answer them.</li> </ul>

#### Day 4 –

Today, you will organise your food stall event and calculate how much profit you make.

Time	Activity and Description
10 minutes	<p><b>Food Stall Set-up</b></p> <p><b>Note:</b> Provide the ingredients to the learners.</p> <p>Set up your food stalls! Once done, start preparing food and plating your dishes according to your recipe.</p> 
15 minutes	<p><b>Food Stall Event</b></p> <p><b>Note:</b> Distribute the fake currency that learners created among customers. Customers can use it to buy food items.</p> <p>Ensure that the following tasks are carried out smoothly:</p> <ul style="list-style-type: none"> <li>- Taking orders</li> <li>- Delivering orders</li> <li>- Preparing food items</li> <li>- Storing and keeping track of money</li> </ul>



10 minutes	<p><b>Reflection</b></p> <p>Calculate the amount of money you made and then think about these questions:</p> <ul style="list-style-type: none"> <li>- How much profit did you make?</li> <li>- How much more or less was this than the profit you projected? Why do you think you made less or more profit?</li> <li>- What did your customers think of your stall and food? How do you know?</li> <li>- What did you enjoy the most during this project?</li> <li>- What did you find challenging?</li> <li>- Would you like to set up your food stall when you grow up? If yes, what kind of a food stall would it be?</li> </ul>
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<b>Additional enrichment activities:</b>	<ul style="list-style-type: none"> <li>- Learners can think of health-based themes for their food stalls, such as healthy snacks or balanced meals.</li> <li>- Learners can calculate the salaries of different group members, based on the profit earned.</li> </ul>
<b>Modifications for simplification</b>	<ul style="list-style-type: none"> <li>- The section on projecting profits, carrying out customer surveys, and adjusting selling prices based on them can be skipped.</li> </ul>

## ASSESSMENT CRITERIA

A majority of my learners were able to:

- Design business plans to start and run a food stall business.
- Create a concept for a food stall, write accurate recipes, prepare ingredients and make dish(es) for customers.
- Multiply fractions with whole numbers to calculate Cost Prices.
- Calculate Selling Prices using the concepts of Cost Price and Profit.
- Project Profit using linear equations with one variable.
- Calculate the average price customers are willing to pay for a food item.
- Compare actual profit with targeted profit.

## APPENDIX 1

### *Business Plan Template*

Categories	Questions to Think About
Q1. Who are our customers?	<ul style="list-style-type: none"> <li>○ Why is it important to think about who our customers are?</li> <li>○ If your food stall is set up in the school, who can visit your food stall and buy the items that you sell?</li> </ul>
Q2. What food items do we want to sell?	<ul style="list-style-type: none"> <li>○ On what basis will you decide this?</li> </ul>

	<ul style="list-style-type: none"> <li>Should you only think about what you feel like selling? What else should you think about?</li> </ul>
Q3. What do we want to name our food stall?	<ul style="list-style-type: none"> <li>Why is it important to think about the name?</li> <li>Can you recall the names of the food stalls that you have visited?</li> <li>How do you think the food stall owners named them?</li> </ul>
Q4. How much money will we need to run our food stall?	<ul style="list-style-type: none"> <li>Why will you need money to run your food stall?</li> <li>What do you think food stall owners spend money on to run their food stalls?</li> </ul>
Q5. What should be our prices?	<ul style="list-style-type: none"> <li>How much did you pay for the items that you ate at the food stalls you visited?</li> <li>Do you think you paid more or less than you should have?</li> <li>How will you find out what other people think about this?</li> </ul>
Q7. How much profit are we targeting?	<ul style="list-style-type: none"> <li>What will decide how much profit you will make?</li> <li>How does the number of customers affect profit? How do prices affect profit?</li> </ul>
How do we know if customers liked our food?	<ul style="list-style-type: none"> <li>Why is it important to think about this? What can you do to get this information?</li> </ul>

## APPENDIX 2

### A Sample Recipe - Moong Bean Salad

<b>Ingredients:</b>			
1 cup moong bean sprouts	$\frac{1}{4}$ of a cucumber	$\frac{1}{2}$ of a tomato	$\frac{1}{4}$ of an onion
$\frac{1}{2}$ of a lemon	salt	pepper	
<b>Steps</b>			
<ul style="list-style-type: none"> <li>Chop the cucumber, tomato and onion into small pieces</li> <li>Mix moong bean sprouts with the chopped vegetables</li> <li>Add lemon juice</li> <li>Add salt and pepper, and mix</li> </ul>			

## APPENDIX 3

### A Sample Feedback Form

What did you order?

Moong bean salad

Vegetable sandwich

Shade the stars to tell us how will you rate your food.

