



Stage 6: Budgeting

Learning objectives:

- To work within a budget
- To solve multi-step problems

Stage overview:

This lesson could be completed after or during a block of teaching on written addition and subtraction methods or calculating with money. It allows the children to apply their learning to solve real-life problems and gives those who may be disenchanted by Maths an engaging purpose for learning.

The children could find out the cost of their ingredients using a supermarket website, or you could complete this lesson in a supermarket and give them the opportunity to pay for their items themselves.

Materials needed:

Access to the internet or a supermarket

Presentation notes:

Slide 2: The definition of 'a budget'	<ul style="list-style-type: none"> - Ask the children if they understand and can explain the term 'budget' - A budget is a set amount of money that businesses have to spend over a set period of time. - Explain that their budget will be the amount of money they have to spend on producing their product.
Slide 3: Introduce the task	<ul style="list-style-type: none"> - The children will have a budget of £1 per group member to buy the additional ingredients needed to make the product they have designed. - Explain that the children will be able to use the butter that we will make in the next session so they do not need to include that in their calculations but any other ingredients will need to be bought using their budget, including those for the basic tartlet recipe e.g. flour. - If they find that they cannot afford their original ideas, they will need to adapt their recipe and think of ways to solve this real life problem. This is an excellent opportunity for the children to work on their addition, subtraction, problem-solving and collaboration skills. - Spoken language skills could also be assessed when listening to the problem solving discussions that take place.
Slide 4: Maths with meaning	<ul style="list-style-type: none"> - If completing this stage in the classroom, model how to use the supermarket website to search for their ingredients and order them so they can view the product options in order of price. - Encourage the children to think carefully about which written calculation methods will be the most efficient to use in the context of this problem. Take suggestions for the methods that have been covered and lead a discussion on the most efficient one to use. - Discuss top tips for calculating with decimals.

	<ul style="list-style-type: none"> - Model the method you would like them to use for addition and subtraction with decimals if needed. - Emphasise the importance of accuracy when calculating their total cost to ensure they stay within their budget. Encourage the children to therefore check their working out and take suggestions for methods they could use for this. - If completing this session in the classroom, once the children have calculated the cost of buying their materials and checked they have stayed within their budget, ask them to write their teacher a shopping list for their chosen ingredients.
Slide 5: Tally charts	<ul style="list-style-type: none"> - The children should draw a tally chart to record their findings before collecting their data (or use the table template). - Revise year 3 learning and model how to record their results in a tally chart using the power point.
Practical activity: Collecting data	<ul style="list-style-type: none"> - Give children the opportunity to collect answers from as many children as possible from a range of year groups. - Allow time for group members to feedback their findings and draw conclusions about the most popular flavour with their target customers.
Slide 6: Bar chart revision/ chocolate bar challenge	<ul style="list-style-type: none"> - Revise Year 3 learning by asking the children to write a list of top tips for drawing bar charts. This could be completed as a chocolate bar challenge activity: each child has a plain piece of paper which they fold into 6 segments. They fill one of the segments with an idea of their own and then walk around the room to collect answers from their peers until the remaining segments are full and they have 6 different top tips for drawing bar charts.
Slide 7-9: Drawing a bar chart	<ul style="list-style-type: none"> - Share the power point to talk the children through each stage of drawing a bar chart and share top tips for drawing one. - Model each step of how to construct a bar chart. - Ask the children to construct a bar chart to display their market research results.
Slide 10: Decision time!	<ul style="list-style-type: none"> - Ask the children to come to a final decision about what flavour their tartlet/ breakfast drink will be. - Explain that they do not have to follow the results of their market research and they can instead choose to appeal to a niche market and design their product specifically to meet the needs of this smaller group of customers. - Ask children to write two sentences to explain what their market research showed and the final decision their group came to.

Links to the National Curriculum:

Subject	Topic	Objective
Maths	Statistics	<ul style="list-style-type: none"> - Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.