



Stage 5: Conducting market research

Learning Objectives:

- To design and conduct a survey
- To present data in a bar chart

Stage Overview:

In the stage, the children are introduced to the idea of market research as an engaging and meaningful context for Maths learning. Through this, they learn how to design a simple survey to understand their potential customers' preferences and construct a bar chart to display their findings. They then work as a team to come to a final decision about which food product their business should make.

Materials needed:

- Squared/ graph paper or bar chart template
- Tally chart template

Presentation notes:

Slide 2: Introduction to market research	<ul style="list-style-type: none"> - Display the power point slides to use questioning to introduce market research and how we can use it to help us decide which additional flavours we should add to our tartlets or breakfast drinks. - Explain that we are going to conduct a survey and record our results using a tally chart. To do this we simply ask lots of people who we want to buy our product which of our flavour ideas they prefer. By asking our customers what they would prefer, we can make a product that they are more likely to buy and be happy with. - To display our results, we will learn all about bar charts.
Slide 3: Types of question	<ul style="list-style-type: none"> - Explain that for this survey, we need to ask a closed multiple choice question. This means that we will offer a small range of tartlet flavour options and ask participants to choose the option they would like the most. This will tell us whether people will want to buy our product or not.
Slide 4: Maths with meaning	<ul style="list-style-type: none"> - Using the flavours that they decided on last lesson, ask business groups to write down their research question(s) e.g. what is the most popular tartlet flavour in Year 4/ KS2/ our school? - You might like to extend the children to ask a second question about the factors that would affect their product choice e.g. price, colourful packaging, made using local produce

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. - Alternatively, the children could use software such as Google or Microsoft forms to gather their survey data. This would collate the responses into a spreadsheet automatically, making their data collection more efficient.
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. - The children could also create their graphs using online graphing software.
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	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
Computing		select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.