

Maths – 15 minutes

Lesson plan

Curriculum link: Explore what can and cannot be inferred in statistical and probabilistic settings and begin to express their arguments formally.

Learning Objective: To explore job roles linked to the statistics part of the KS3 maths curriculum

Learning Outcomes:

- To understand why knowledge of statistics is necessary for a market research analyst

Success Criteria:

1. **Describe** – What does an Analyst do?
2. **Understand** – The difference between quantitative and qualitative data and how an Analyst can use statistics to make recommendations to inform decision making.
3. **Apply** – Analyse survey data and make a recommendation to the council on whether to build a café in the local park

Timings	Activity	Details	Resources
3 mins	Starter – Reading graphs to identify the relationships between using certain spaces and mental health	Talk through the graph when getting the feedback – what does each bar represent? Is this what you would expect? Take all feedback, but should ultimately land on the message that using the gym even just once each week has an impact on mental health, but using the Woods and Forests helps mental health the more that they are used Source: https://www.hutton.ac.uk/sites/default/files/files/projects/GreenHealth-Final-Report.pdf	Slide 3 To be printed off if students can't see the board
2 mins	Introduction – What's the problem?	(1) Read the extract from The New Scientist. For more background read the full article here Discuss	Slide 4



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	Students discuss implications of increasing urbanisation	<p>(2) What challenges can you see as result of this trend? Use the discussion from the starter to help you.</p> <p>(3) How might this affect priorities for city councils? What kinds of new jobs might be in demand?</p>	
3 mins	<p>Introduce the challenge & explore the role of analyst</p> <p>Success criteria b: Describe the role of an analyst and the skills needed</p>	<p>(1) Read the challenge to the students</p> <p>(2) Show the video embedded on slide 6 in the PowerPoint (link here)</p> <p>From start until 1.45secs</p> <p>Discuss</p> <p>What is the value that Research Analysts can bring to organisations?</p> <p><i>Examples</i></p> <ul style="list-style-type: none"> • Gather data • Convert complex data into easy-to-understand reports • To help create new products or design marketing campaign • Measure how effective campaigns are • Brainstorm new ways to gather data and find meaningful information 	<p>Slide 5, 6</p> <p>Video</p>
7 mins (total)	Challenge task: becoming an analyst	<p>Challenge task</p> <p>Using worksheet 1</p>	<p>Slide 7, 8, 9</p> <p>Worksheet 1</p>



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	<p>Success criteria c: Recommend whether the Mayor should build the café</p>	<p>Task c1: Currently around 200 people use the park each week. Help Matt to calculate the expected weekly use of the café.</p> <p>Task c2: Help Matt to analyse the expected annual revenue of a new café, using your calculation from the last task.</p> <p>Process for the maths is in the facilitator notes on slides 7 and 8</p> <p>Task c3: On slide 9 talk students through the summary of the information they now have, including that Mark's analysis shows the café will cost £60,000 to operate.</p> <p>He is still confident that the city can afford the café. What do the students think?</p> <p>Discussion points in the facilitator notes</p>	
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