 **LPS Mathematics: Year 8 Unit 3 – Collecting and Representing Data**

 **Enquiry Question:** **How could we work out the average height of a student in year 8?**

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| **Key Topics and Learning Sequence**  |
| **= First Steps** |  **= Moving On** |  **= Stretch** |  **= Challenge** |
| 1. **Collecting data**
2. What is **data?**
3. Designing a good question and **questionnaire**
4. Using **tallies** to record data
5. Using **digital sources** to collect data
 | 1. **Data Visualisations**
2. **Pictograms** and **infographics**
3. Simple **bar charts** and **vertical line charts**
4. **Two way tables**
5. More complex bar charts - **dual and stacked**
6. Drawing a **Pie chart**
 | 1. **Interpreting Data Visualisations**
2. Explaining what you can read from a pictogram or infographic
3. Explaining what you can read from a bar or vertical line chart
4. Explaining what you can read from a two way table
5. Explaining what you can read from a pie chart
 | 1. **Data in context**
2. Using data to answer a question
3. Understanding **common errors** in using data
4. Comment on important **features of data**
5. Exploring real **data sets**- including using technology and digital sources
 | 1. **Carrying out a data project**
2. Choosing a good question to investigate.
3. Applying how to collect data to your project
4. Applying how to use charts to represent data in your project.
5. Applying how to interpret charts to answer questions in your project
6. **Communicating your findings** clearly in writing and orally
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| **How does this unit fit into your mathematical learning journey?** | **Further Exploration, Enrichment and Cultural Capital** |
| This unit lets you experience different ways of **collecting, using, and representing data** which represents your world. This unit creates the foundations into data. We then explore this in more detail when you learn about **averages and spread** in **year 9** and explore the key mathematical idea of **reasoning with data** in **year 10**. | **Reading:** [**https://nrich.maths.org/13883**](https://nrich.maths.org/13883)**Enrichment:** Go to this website and use its infographic maker to design your own! [**https://www.canva.com/**](https://www.canva.com/)**Cultural Capital:** Read and interpret as many of the graphs about Poplar in this document. Can you list all the different types of graphs used? <https://www.towerhamlets.gov.uk/Documents/Borough_statistics/Ward_profiles/Poplar-FINAL-10062014.pdf> |

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**Date: Initial Thoughts:**

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**Date: New Thoughts:**

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**Date: Final Thoughts:**

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