|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Key Topics and Learning Sequence** | | | | | | |
| **= First Steps** | **= Moving On** | | **= Stretch** | | **= Challenge** | |
| **1. What is an average?**   1. What is the **middle of a data set**? 2. Types of data **Qualitative, Quantitative, Discreet** and **Continuous** 3. What is the **mode?** 4. What is the **median?** 5. What is the **mean**? | **2. Focus on the Mean**   1. How to calculate the **mean** 2. **Outliers:** What are they and how to treat them 3. Changing and **Combining data sets** and the mean 4. Similarities and Differences between averages | **3. Spread and variation**   1. What do we mean by **spread** and **variation** 2. Calculating the **range** 3. Calculating **quartiles** (extension)   d. Calculating the **Inter-Quartile Range** (extension) | | **4. Averages and racism**  a) Exploring data and charts on racial inequality  b) Averages and racial inequality | | **5. Comparing Data Sets and Box Plots (extension)**   1. Using Averages and measures of Spread to **compare data sets** 2. Drawing a **Box Plot** 3. Drawing **parallel box plots** to compare data sets |
| **How does this unit fit into your mathematical learning journey?** | | | **Further Exploration, Enrichment and Cultural Capital** | | | |
| This unit builds on work from **year 7** on **collecting data..** Here you learn about measures that represent **data sets**. In **year 10** you will do a unit on **Frequency** which uses these ideas with larger data sets, in the context of **Racial Inequality.** | | | **Reading:**  **Enrichment:** Watch this video about how data shows the world changing. Where do you see averages in it? https://youtu.be/jbkSRLYSojo  **Cultural Capital:** Go to the Florence Nightingale Museum in London. Famous as a nurse, but she was so much more! In fact, she used data to revolutionise medicine! | | | |

**LPS Mathematics: Year 9 Unit 2 – Averages and Spread Enquiry Question:** “**Does your postcode affect your average wage?”**

**Enquiry Question:** “**Does your postcode affect your average wage?”**

**Date: Initial Thoughts:**

**………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………**

**Date: New Thoughts:**

**…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………**

**Date: Final Thoughts:**

**………………………………………………………………………………………………………………………**

**………………………………………………………………………………………………………………………**

**………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………**

**………………………………………………………………………………………………………………………**