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| **Key Topics and Learning Sequence**  |
| **= First Steps** |  **= Moving On** |  **= Stretch** |  **= Challenge** |
| **1. Mathematical language and notation**1. Know definitions of **integer, product, sum** and **total**

 1. Identify an **equation** and **expression**
2. Know symbols such as **≠,∴,∎**

d) Know symbols such as **∃ and ∀**   | **2. Equals**1. Create an equation which is true

 1. Use the equals sign correctly when writing out a calculation.
2. Understand **identities** are always true and use the **symbol ≡** when appropriate

 1. Write an equation using two others with a shared **variable**

  |  **3. Laws of Arithmetic**1. Can correctly assess the **commutativity** of addition and subtraction.
2. Can correctly assess the **commutativity** of multiplication and division.
3. Apply your knowledge of **commutativity** to understand that **identities** are always true

 1. You understand the laws of **association** and **distribution**
 |  **4. Variables**1. Answer a question involving an **unknown**
2. Write an **expression** with a **DEFINED variable** which involves addition and multiplication

 1. Write an **expression** with a **DEFINED variable** which involves subtractions and division

 1. Write an **expression** which relates to more than one variable
 |
| **How does this unit fit into your mathematical learning journey?** | **Further Exploration, Enrichment and Cultural Capital** |
| This unit of work build on the mathematical vocabulary, symbols, and notation you **first learn in primary school** and introduces you to new language and notation which you will come across many times in your secondary mathematics education and need in **almost every unit** you learn in your five years at Langdon Park School. | **Reading:** Why do we need algebra? [**https://www.wonderopolis.org/wonder/why-do-i-need-to-learn-algebra**](https://www.wonderopolis.org/wonder/why-do-i-need-to-learn-algebra)**Enrichment:** Look at the Royal Institution Website and enjoy a family fun day exploring some interactive maths or listening to some talks![**https://www.rigb.org/families/family-fun-days**](https://www.rigb.org/families/family-fun-days)Watch this Hannah Fry video on why we need algebra and variables: [**https://www.youtube.com/watch?v=-LI9iX9tC1k**](https://www.youtube.com/watch?v=-LI9iX9tC1k) |

**LPS Mathematics: Year 7 Unit 2 – Language of Mathematics**

 **Enquiry Question:** **Why do we need a universal mathematical language?**

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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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