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| **Key Topics and Learning Sequence**  |
| **= = First Steps** |  **= Moving On** |  **= Stretch** |  **= Challenge** |
| **1. Understanding Perimeter and Area**1. Understand what is meant by **perimeter**
2. Find perimeter by counting squares
3. Find **perimeter** by measuring the **distance**
4. Understand what is meant by area
5. Find area by counting and estimating squares
 |  **2. Calculating Perimeter**1. Can find the **perimeter** of a shape when all **lengths are given**
2. Calculate **perimeter** when you need to apply your knowledge of shape to work out. **missing length**
3. Problem solve to find **missing sides** to enable you to calculate the **perimeter** of a shape
 | **3. Calculating Area** 1. Apply the **formulae** to find the **area** of a **rectangle**

and a **parallelogram**1. Apply the **formulae** to find the **area** of a **triangle**
2. Apply the **formulae** to find the **area** of **trapezium**
3. Find **areas** of **compound shapes** using a range of **formulae**
 | **4. Investigating Perimeter** 1. Can **maximise area** of a quadrilateral.
2. Can **maximise area** for any **polygon.**
3. Can see the relationship as the number of sides tends to infinity and extend these ideas to **3D.**
 | **5. Shapes and symmetries**a) Know what we mean by **symmetry.** b) Can identify **lines of symmetry** in a polygon. c) Can identify **rotationa**l symmetry. d) Can identify **reflective** symmetry. e) Identify **translational** and **glide** symmetry.  |
| **How does this unit fit into your mathematical learning journey?** | **Further Exploration, Enrichment and Cultural Capital** |
| This unit will build on the knowledge that you have from **Primary.**  You will focus now on properties and definitions. This will prepare you for **reasoning, algebraic thinking** and other work on geometry which we look at in more detail in **geometric reasoning** in **Year 8** and **circles** in **Year 9.** | **Reading:** read **Flatland** – a funny short story imagining a world of only 2 dimensions**Enrichment:** workshops from on the **LEGOLAND Windsor Resort** website that help develop students problem solving skills, <https://www.legoland.co.uk/> |

**LPS Mathematics: Year 7 Unit 6 – Introduction to Shape**

 **Enquiry Question:** **What shape contains the biggest area?**

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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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