Secret Garden Perimeter Wall Maths Investigation

Vocabulary – copy this vocabulary into your books for future reference

**Perimeter** = distance around the edge of a shape or area

**Quadrilateral** = 4 sided shape with 4 corners (vertices)

**Square** = a special quadrilateral with 4 equal sides and 4 vertices each with an internal angle of 90 degrees (a square corner) like on most books etc..

**Rectangle** = ??? complete this definition …

Equilateral triangle = 3 sides of equal length

Right angle = has one 90 degree angle

Scalene = all sides different

**The perimeter wall of the Secret Garden is 100 metres.**

**Using the scale of 1cm on paper to 1m in real life draw perimeter walls using the following criteria;**

**Green level challenge:**

Draw 5 ways the perimeter wall could be built if it was built as a quadrilateral. One must be a square and one must be a rectangle.

How many ways can you draw the square version ? Why ?

**Blue level challenge:**

Draw 3 ways the perimeter wall could be built if it was a rectangle

3 ways if it was any other quadrilaterals

1 way for each of the types of triangles in the vocabulary list above

**Purple level challenge:**

Complete the blue challenge but also then work out;

If the garden was a rectangle with a perimeter of 100 metres, how many versions of the wall would there be ? (each side being in whole metres)