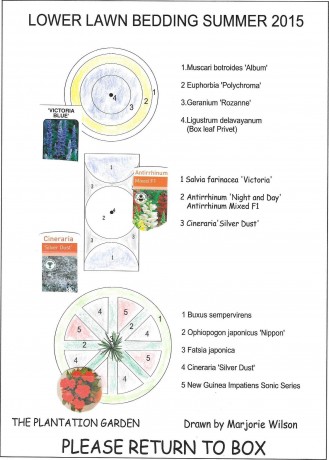
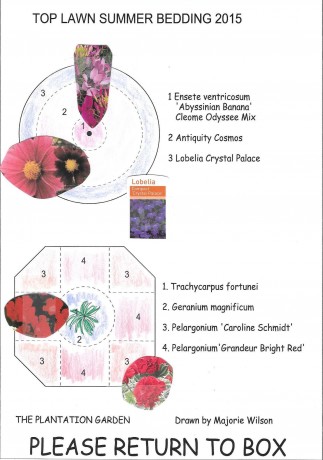
**Maths at The Plantation Garden**

**Planting Designs and Costings**

Giving the children a flower bed to design a panting scheme of tulip bulbs could lead to a number of different mathematical tasks. These are some of the planting bays at the Plantation Garden.



**Shape and Space**

The round and octagonal beds could be used to design planting arrangements that include both rotational and reflective symmetry with shapes and colours. Explore existing plans and photographs to look at the symmetry in these. Why are the beds often symmetrical?

Take a look at some of the designs already on the website to inspire your own.

To make this more challenging, you could specify the order of symmetry the children need to include, or to specify certain shapes that need to appear in the planting.



**Area and Perimeter**

These plans could also be used to calculate the area of each colour included in the display. This could easily be differentiated by giving the children the rectangular bed for the most straightforward arrangements, the octagonal bed for more complex and the circular beds to include area of circles, which may also include measuring and calculating angles for sections of the designs. (See the PowerPoint for some challenging area and perimeter work).

The areas could be calculated after having created the plans, or could be specified in advance – either asking for a certain area in m2 for different colours, or a proportion or percentage of the bed in different colours.

Once areas have been established, the children could be asked to work out the quantity and cost of bulbs for their arrangement. There are a number of catalogues or websites that could be used for this, or children could work together to source their own company to achieve their desired planting scheme.

This particular website has tulips split into different varieties with prices for 10 or for 50 bulbs: <https://www.blomsbulbs.com/>

100 bulbs per square metre is suggested, but this value could be changed if desired.

This company also offer percentage discounts on larger orders which will need to be calculated in order to work out the total cost of the displays:

**TOTAL SPEND DISCOUNT**

£125 TO £249 ***save 5%***

£250 TO £499 ***save 10%***

£500 TO £999 ***save 15%***

£1000+ ***save 20%***

