



LITE Regal  
EDUCATION

Maths Syllabus Inspirational Summer Camp 10-13

Syllabus Date : 2019

Age group : 10 -13 yrs old ( years 6 / 7 / 8 )

Lite Regal Education and Lite Regal International School

Months : June 30<sup>th</sup> – 30<sup>th</sup> August 2019

Place of Study - Lite Regal Cambridge and Lite Regal London

This course and syllabus is aimed at UK and International Students aged 10-13 in years 6-8 and will take place in London and Cambridge during the Summer Months. The aim within the time your child is with us is to further the existing maths skills they have and to ensure that they are challenged with any gaps in their existing maths knowledge covered. This syllabus is based and derived from expectation of the UK Government of KS2 and KS3 (Key Stages 2 and Key Stages 3). Emphasis will be given to children embarking on 11+ examination and for the older children starting their ability to KS3 maths. KS3 maths will be taught in ability sets: this means the more able children will be stretched, while children who struggle with maths will take things more slowly, and be given more support. The children moving from lower school will find the course more challenging and the children are expected to be working more independently. With all the topics the children will be studying, with our tutors help our aim is to enable them to be developing 'mathematical process' skills - which include reasoning, analysis and evaluation. We will be working from Bond, Pearsons (Edexcel) and other maths worksheets developed for KS2 and KS3 teaching.

**Y6 / Y7 / Y8 maths – your child will be learning from the following topics:**

#### **Numbers**

- Decimal notation and place order
- Comparing decimals
- Rounding whole numbers and decimals
- Positioning negative numbers on a number line
- Understanding integers
- Highest common factors
- Lowest common multiples
- The squares of numbers up to 12x12 and their roots
- Simplifying fractions
- Adding and subtracting fractions
- Calculating percentages
- Ratio and proportion

- Calculations with brackets
- Solving problems using mental maths and calculators

### **Algebra**

- Using letters to represent numbers
- Simplifying equations
- Solving simple equations
- Number sequences
- Input, output and mapping diagrams
- Plotting graphs using co-ordinates

### **Geometry and measures**

- Recognising parallel and perpendicular lines
- Calculating the sum of angles on a point, triangle and straight line
- Using the correct geometrical terms
- Geometrical problems using triangles and quadrilaterals
- Reflections, rotations and translations of 2D shapes
- Symmetry of a 2D shape
- Finding co-ordinates of points
- Using a ruler and protractor to draw accurate lines, angles and triangles, and construct 3D shapes
- Estimating and calculating problems involving measuring
- Converting metric units
- Estimating the size of acute, obtuse and reflex angles
- Learning the formula for calculating the area of a rectangle
- Surface area of cubes and cuboids

### **Statistics**

- Collecting data from surveys and experiments
- Designing questionnaires to collect data
- Creating frequency tables
- Calculating statistics
- Finding the mode, median and mean
- Creating and interpreting graphs, pie charts and diagrams showing data, on paper and using ICT
- Writing a statistical report
- Understanding probability terms such as likely, unlikely, impossible, probably
- Estimating probability from a simple experiment
- Comparing probabilities