# YEAR 8 - MATHEMATICS FINAL EXAM PORTIONS 2021

Gl Progress Test in Math assesses pupil's current knowledge and skills appropriate to age related expectations.

- GL PTM assesses
- **1.** Mathematical content knowledge (full year portion)
- 2. Understanding and applying mathematical processes.

### **MATHEMATICAL CONTENT**

### Text book : Ks3 Maths Progress Delta 2

#### **Unit 1 – Factors and powers**

- 1.1 Prime factor decomposition
- 1.2 Laws of indices
- 1.3 Powers of 10
- 1.4 Calculating and estimating

### Unit 2 – Working with powers

- 2.1 Simplifying expressions
- 2.2 More simplifying
- 2.3 Expanding and factorising expressions
- 2.4 Substitution and solving

### Unit 3 – 2D shapes and 3D Solids

- 3.2 Surface area of prisms
- 3.3Volume of prisms
- 3.4 Circumference of a circle
- 3.5Area of a circle
- 3.6 Cylinders
- 3.7 Pythagoras' Theorem

### Unit 4 – Real life graphs

4.3 Distance-time graph4.4 Rates of change

### **Unit 5**-Transformations

- 5.1 Reflection and translation
- 5.2 Rotation
- 5.3 Enlargement
- 5.4 More enlargement

#### Unit 6 – Fractions, decimals and percentages

- 6.1 Recurring decimal
- 6.2 Using percentages
- 6.3 Percentage change
- 6.4 Repeated percentage change

### Unit 8 – Probability

- 8.1 Comparing probability
- 8.2 Mutually exclusive events
- 8.3 Estimating probability
- 8.4 Experimental probability
- 8.5 Probability diagrams

### Unit 9 –Scale drawings and measures

- 9.1 Maps and scales
- 9.2 Bearings
- 9.3 Scales and ratio
- 9.4 Congruent and similar shapes
- 9.5 Solving geometry problems

### Unit 10 – Graphs

10.1 Plotting linear graphs
10.2 The gradient
10.3 y=mx+c
10.4 Parallel and perpendicular lines

# Text book : KS3 Maths Progress Delta 3

### **Unit 1 – Powers and roots**

- 1.2 Indices
- 1.3 Standard form

### Unit 2 – Quadratics

2.2 Expanding Unit 3 – Inequalities, equations formula 3.2 Using index laws3.3Solving equations3.4Changing the subject

### **Unit 4 – Estimating Statistics**

4.3 Estimating Statistics

## **Unit 5 – Multiplicative reasoning**

5.4 Arcs and sectors

### **Unit 8 – Graphical solutions**

8.1 Simultaneous equations

# **Textbook : KS3 Maths Progress Delta 1 – Revision Topics**

### Unit 1 -Analyzing and displaying data

- 1.2 Averages and range
- 1.3 Grouped Data
- 1.4 More Graphs
- 1.5 Pie Charts

### **Unit 5- Angles and shapes**

- 5.1 Angles and parallel lines
- 5.2 Triangles
- 5.3 Quadrilaterals
- 5.4 Polygons

# **Unit 8 - Multiplicative reasoning**

8.2 Writing Ratios8.3 Sharing in a given Ratio8.4 Proportion8.5 Proportional reasoning8.6 Using the unitary method

## Unit 10 – Sequences and graphs

- 10.1 Sequences
- 10.2 The nth term
- **10.3 Pattern Sequences**

# Note:

All the work done in notebook and worksheets.