**BGCFL**

#### MATHS DEPARTMENT



# YEAR 8

**SCHEME OF WORK**

**This scheme of work is to be used as a guide only. Sometimes due to unforeseen circumstances the class may be a week behind or sometimes may even a week ahead of schedule. The topics will still be covered in the same order.**

# Term 1 year 8

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| **Number** | Learning Objectives. | Resources. |
| Week 1 | Stage 3: Add and subtract 3 digit numbers on paper. | Play money.  Number lines.  Dice.  Cubes.  Counters.  Worksheets.  Test sheets.  ICT: My Maths, Twinkl and many more resources. |
| Stage 4: Know times tables up to 10 x 10. |
| Stage 6: Solve times and divide problems, including remainders. |
| Week 2 | Stage 4: Recognise negative numbers on a number line. |
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| Stage 4: Use negative numbers in real life. I.e. temperature. |
| Stage 4: Find numerical differences in temperatures including negative temperatures. |
| Week 3 | Stage 5: Order decimals to 3 decimal places. |
| Stage 5: Add and subtract decimals to 2 decimal places. |
| Week 4 | Stage 5: Multiply whole numbers by 10 and 100. |
| Stage 5: Divide whole numbers by 10 and 100. |
| Stage 5: Multiply and divide any number by 10 and 100. |
| Week 5 | Stage 5: Find multiples of any number. |
| Stage 5: Find factors of any number. |
| Week 6 | Consolidation and end of term test. |
| Advice: Less able pupils may not complete all sections. They can concentrate on understanding number and simple addition and subtraction. Use year 7 SOW if required.  Most able pupils can progress further by solving problems involving 4 or more digits.  Many activities can be taught as starters or games at the end of each lesson. | | |

Term 2 Year 8

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| **Shape and Measure** | Learning Objectives. | Resources. |
| Week 1 | Stage 3: Reflect shapes in a mirror line. | Number lines.  Rulers.  Metre rules.  Angie measures.  Trundle wheels.  Weighing scales.  Measuring jugs.  Maps.  Textbooks.  Worksheets.  Plastic shapes.  Test sheets.  ICT: My Maths, Twinkl and many more resources. |
| Stage 4: Know the order of rotational symmetry of a shape. |
| Week 2 | Stage 2: Find perimeters of simple shapes. |
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| Stage 3: Find areas by counting squares. |
| Stage 3: Know the formula for the area of a rectangle. |
| Week 3 | Stage 5: Know the angle sum of a triangle is 180 degrees and find missing angles in a triangle. |
| Stage 5: Know the angle sum of a quadrilateral is 360 degrees and find missing angles in a quadrilateral. |
| Week 4 | Stage 6: Convert between metric measures of length. |
| Stage 6: Convert between metric measures of mass. |
| Stage 6: Convert between metric measures of capacity. |
| Week 5 | Stage 5: Estimate everyday measurements. |
| Stage 4: Measure length, mass and capacity of varying sizes. |
| Week 6 | Consolidation and end of term test. |
| Advice: Less able pupils may not complete all sections. They can concentrate on understanding simple measurements. Use year 7 SOW if required.  Most able pupils can progress further by solving problems involving angle sums of other polygons.  Many activities can be taught as starters or games at the end of each lesson. | | |

Term 3 Year 8

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| **Data Handling** | Learning Objectives. | Resources. |
| Week 1 | Stage 2: Draw bar charts and pictograms. | Probability lines.  Dice.  Playing cards.  Flip charts.  Textbooks.  Worksheets.  Test sheets.  ICT: My Maths, Twinkl and many more resources. |
| Stage 3: Interpret information in bar charts and pictograms. |
| Week 2 | Stage 3: Read information in tables and lists. |
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| Stage 3: Draw and describe simple line graphs. |
| Week 3 | Stage 4: Collect data and record in a frequency table. |
| Stage 4: Analyse data recorded in line graphs and bar charts |
| Week 4 | Stage 5: Find the mode of a set of data. |
| Stage 5: Find the median of a set of data. |
| Stage 5: Find the range of a set of data. |
| Week 5 | Stage 4: Find probabilities from equally likely events. |
| Stage 7: Find and interpret probabilities from an experiment. |
| Week 6 | Consolidation and end of term test. |
| Advice: Less able pupils may not complete all sections. They can concentrate on understanding simple charts and graphs. Use year 7 SOW if required.  Most able pupils can progress further by collecting more sophisticated data or finding the mean.  Many activities can be taught as starters and plenaries. | | |

Term 4 year 8

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| **Number and Algebra** | Learning Objectives. | Resources. |
| Week 1 | Stage 1: Use letters to represent numbers. | Play money.  Number lines.  Dice.  Cubes.  Counters.  Worksheets.  Test sheets.  ICT: My Maths, Twinkl and many more resources. |
| Stage 3: Begin to form simple algebraic expressions. |
| Week 2 | Stage 2: Simplify expressions by collecting like terms. |
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| Stage 5: Substitute numbers for letters in formulae and evaluate the result. |
| Week 3 | Stage 6: Round numbers to nearest 10, 100 and 1000. |
| Stage 7: Round numbers to 1 and 2 decimal places. |
| Week 4 | Stage 6: Use brackets to correctly solve problems. |
| Stage 6: Use BODMAS to correctly solve problems. |
| Week 5 | Stage 7: Recap number work. |
| Stage 7: Approximate the result before multiplying 2 numbers. |
| Week 6 | Consolidation and end of term test. |
| Advice: Less able pupils may not complete all sections. They can concentrate on understanding number and algebra questions. Use year 7 SOW if required.  Most able pupils can progress further by solving problems involving 4 or more digits or even rounding numbers to significant figures.  Many activities can be taught as starters or games at the end of each lesson. | | |

Term 5 Year 8

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| **Number** | Learning Objectives. | Resources. |
| Week 1 | Stage 3: Understand place value up to 1000 | Play money.  Number lines.  Dice.  Fraction disks.  Cubes.  Counters.  Cups for ratio.  Worksheets.  Test sheets.  ICT: My Maths, Twinkl and many more resources. |
| Stage 4: Use mathematical symbols including = < > correctly. |
| Week 2 | Stage 4: Order negative numbers. |
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| Stage 4: Add and subtract positive and negative numbers to positive and negative numbers. |
| Week 3 | Stage 4: Find factors of a number up to 100. |
| Stage 4: Find the first 5 multiples of any number up to 15. |
| Stage 4: Begin to look at common factors and multiples. |
| Week 4 | Stage 4: Recognise equivalent fractions. |
| Stage 4: Cancel a fraction to its lowest term. |
| Stage 4: Place simple fractions in order of size. |
| Week 5 | Stage 2: Understand simple ratio. |
| Stage 2: Simplify a ratio. |
| Week 6 | Consolidation and end of term test. |
| Advice: Less able pupils may not complete all sections. They can concentrate on understanding basic concepts. See year 7 SOW if required.  Most able pupils can progress further by solving problems calculating with fractions and ratio.  Many activities can be taught as starters or games at the end of each lesson. | | |

Term 6 Year 8

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|  | Learning Objectives. | Resources. |
| Weeks 1 and 2 and 3. | Recap all number and algebra work. To include exam question practice. | Play money.  Number lines.  Dice.  Cubes.  Counters.  Worksheets.  Test sheets.  ICT: My Maths, Twinkl and many more resources. |
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| Week 4 | Recap shape and measure work. To include exam question practice. |
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| Week 5 | Recap data handling work.To include exam question practice. |
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| Week 6 | Consolidation and end of term test. |
| There will be 3 end of term exams that pupils will take according to their abilities. Therefore all revision can be set at the level of individual. pupil. | | |