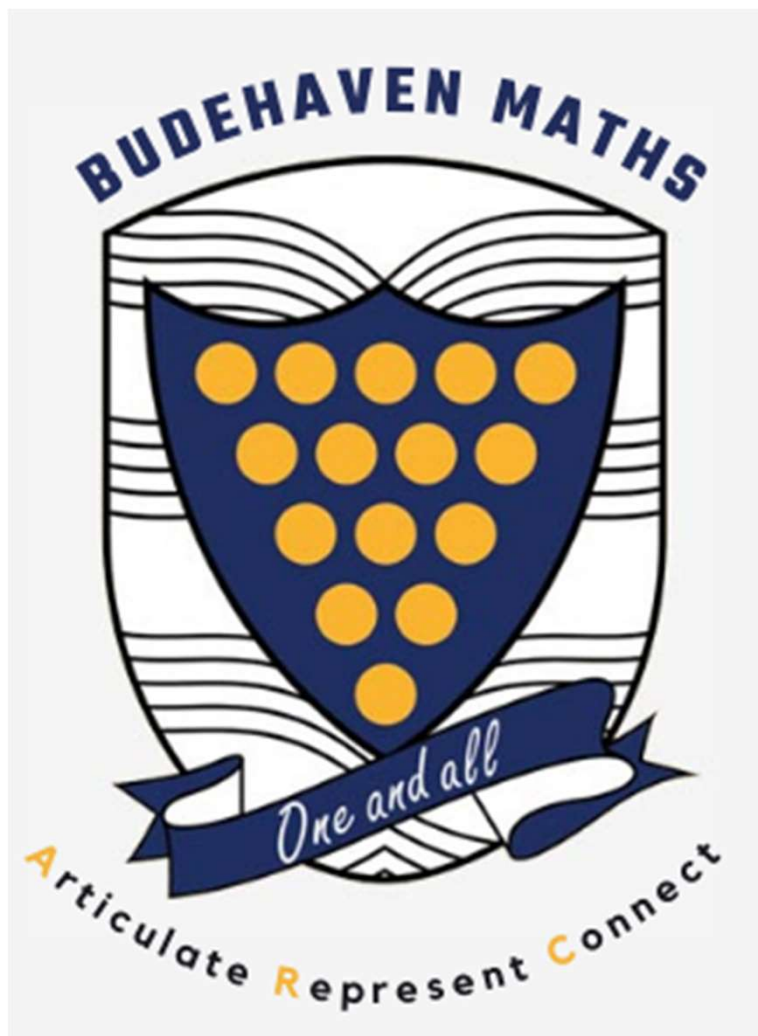


Year 8
Explorers

Sparx Maths



Autumn | Half Term 1

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
|----|-------------------------|---------|-------------------------------|---------|--|---------|---------------|
| WB | 4/9/23 | 11/9/23 | 18/9/23 | 25/9/23 | 2/10/23 | 9/10/23 | 16/10/23 |
| | Unit 1: Ratio and scale | | Unit 2: Multiplicative change | | Unit 3: Multiplying and dividing fractions | | Consolidation |

Autumn | Half Term 2

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 |
|----|--|---------|----------|---------------------------|----------|--------------------------------|----------|---------------|
| WB | 30/10/23 | 6/11/23 | 13/11/23 | 20/11/23 | 27/11/23 | 4/12/23 | 11/12/23 | 18/12/23 |
| | Unit 4: Working in the cartesian plane | | | Unit 5: Representing data | | Unit 6: Tables and probability | | Consolidation |

Spring | Half Term 3

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|----|--|---------|---------|---------|-------------------|-----------------|
| WB | 8/1/24 | 15/1/24 | 22/1/24 | 29/1/24 | 5/2/24 | 12/2/24 |
| | Unit 7: Brackets, equations & inequalities | | | | Unit 8: Sequences | Unit 9: Indices |

Spring | Half Term 4

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 |
|----|------------------------------------|--------|---------|------------------------------|---------|
| WB | 26/2/24 | 4/3/24 | 11/3/24 | 18/3/24 | 25/3/24 |
| | Unit 10: Fractions and percentages | | | Unit 11: Standard index form | |

Summer | Half Term 5

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|----|----------------------------------|---------|--|--------|-------------------------------------|---------|
| WB | 15/4/24 | 22/4/24 | 29/4/24 | 6/5/24 | 13/5/24 | 20/5/24 |
| | Unit 12: Developing number sense | | Unit 13: Angles in parallel lines & polygons | | Unit 14: Area of trapezia & circles | |

Summer | Half Term 6

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
|----|-------------------------------------|------------------------------|---------|---------|--------|-------------------------------|---------|
| WB | 3/6/24 | 10/6/24 | 17/6/24 | 24/6/24 | 1/7/24 | 8/7/24 | 15/7/24 |
| | Unit 15: Line symmetry & reflection | Unit 16: Data handling cycle | | | | Unit 17: Measures of location | |

Weeks 1 & 2

Unit 1: Ratio and Scale

Learning Objectives:

- ☐ Writing and simplifying ratios (M885)
- ☐ Using equivalent ratios to find unknown amounts (M801)
- ☐ Sharing amounts in a given ratio (M525)
- ☐ Writing ratios in the form 1:n (M543)
- ☐ Converting between ratios, fractions and percentages (M267)
- ☐ Identifying parts of circles (M595)
- ☐ Finding the circumference of circles (M169)

Weeks 3 & 4

Unit 2: Multiplicative change

Learning Objectives:

- ☐ Solving proportion problems (M478)
- ☐ Value for money (M681)
- ☐ Interpreting real-life graphs (M771)
- ☐ Currency conversion (U610)
- ☐ Drawing and interpreting scale diagrams (M112)
- ☐ Understanding similarity (M377)
- ☐ Finding unknown sides in similar shapes (M324)

Weeks 5&6

Unit 3: Multiplying and dividing fractions

Learning Objectives:

- ☐ Multiplying fractions (M157)
- ☐ Reciprocals (M216)
- ☐ Dividing fractions (M110)
- ☐ Multiplying with mixed numbers (M197)
- ☐ Dividing with mixed numbers (M265)

Week 7

Consolidation

- ☐ Complete tasks from any of the units of work above

Weeks 1, 2 & 3

Unit 4: Working in the cartesian plane

Learning Objectives:

- ☐ Reading and plotting coordinates (M618)
- ☐ Solving shape properties involving coordinates (M230)
- ☐ (R) Substituting into algebraic formulae (M208)
- ☐ Plotting horizontal and vertical lines (M797)
- ☐ Plotting straight line graphs (M932)

Weeks 4 & 5

Unit 5: Representing data

Learning Objectives:

- ☐ Types of data (U322)
- ☐ Collecting and recording data using tables (M945)
- ☐ Interpreting frequency tables and two-way tables (M899)
- ☐ Interpreting frequency tables with grouped data (M441)
- ☐ Plotting and interpreting scatter graphs (M769, M596)
- ☐ Using lines of best fit (U128)

Week 6 & 7

Unit 6: Tables and probability

Learning Objectives:

- ☐ Using probability phrases (M655)
- ☐ Writing probabilities as fractions (M941)
- ☐ Writing probabilities as fractions, decimals and percentages (M938)
- ☐ Probabilities of mutually exclusive events (M755)
- ☐ Sample space diagrams (M718)
- ☐ Venn diagrams (M829)
- ☐ Probabilities from Venn diagrams (M419)

Week 8

Consolidation

- ☐ Complete tasks from any of the units of work above

Weeks 1, 2, 3 & 4

Unit 7: Brackets, equations & inequalities

Learning Objectives:

- ☐ Using the distributive law (M637)
- ☐ Expanding single brackets (M237)
- ☐ Expanding single brackets and simplifying expressions (M792)
- ☐ Factorising into one bracket (M100)
- ☐ (R) Solving equations of the form $ax + b = c$ (M634)
- ☐ (R) Solving equations of the form $x/a + b = c$ (M647)
- ☐ Solving equations of the form $(x+a)/b = c$ (M401)
- ☐ Solving linear equations involving brackets (M902)
- ☐ Solving single inequalities (M118)
- ☐ Constructing and solving equations (M957)
- ☐ Algebraic terminology (M830)

Week 5

Unit 8: Sequences

Learning Objectives:

- ☐ Substituting into position-to-term rules (M166)
- ☐ Position-to-term rules for arithmetic sequences (M991)
- ☐ Position-to-term rules for sequences of patterns (M866)

Week 6

Unit 9: Indices

Learning Objectives:

- ☐ (R) Calculating with roots and powers (M135)
- ☐ (R) Algebraic notation (M813)
- ☐ Index rules with positive indices (M608)
- ☐ Index rules with negative indices (M150)
- ☐ Simplifying expressions using index laws (M120)

Weeks 1, 2 & 3

Unit 10: Fractions and percentages

Learning Objectives:

- ☐ (R) Converting between fractions, decimals and percentages (M264)
- ☐ Writing numbers as percentages of other numbers (M235)
- ☐ (R) Finding percentages of amounts without a calculator (M437)
- ☐ (R) Finding percentages of amounts with a calculator (M905)
- ☐ Percentage change without a calculator (M476)
- ☐ Percentage change with a calculator (M533)

Weeks 4 & 5

Unit 11: Standard index form

Learning Objectives:

- ☐ (R) Multiplying and dividing by 10, 100 and 1000 (M113)
- ☐ Using standard form with positive indices (M719)
- ☐ Using standard form with negative indices (M678)
- ☐ Multiplying and dividing numbers in standard form (U264)
- ☐ Adding and subtracting numbers in standard form (U290)
- ☐ Standard form with a calculator (U161)

Week 1 & 2

Unit 12: Developing number sense

Learning Objectives:

- ☐ (R) Rounding integers and decimals (M111, M431)
- ☐ Rounding integers using significant figures (M994)
- ☐ Rounding decimals using significant figures (M131)
- ☐ Converting units of length, mass and capacity (M774)
- ☐ Calculating with time and the calendar (M627, M747)

Weeks 3 & 4

Unit 13: Angles in parallel lines and polygons

Learning Objectives:

- ☐ (R) Angles on a line and about a point (M818)
- ☐ (R) Vertically opposite angles (M163)
- ☐ (R) Angles in triangles and quadrilaterals (M351, M679)
- ☐ (R) Combining angle facts (M319)
- ☐ Angles on parallel lines (M606)
- ☐ Using quadrilateral properties to find angles (M393)
- ☐ Angles in polygons (M653)

Weeks 5 & 6

Unit 14: Area of trapezia & circles

Learning Objectives:

- ☐ (R) Finding the area of rectangles and triangles (M390, M610)
- ☐ (R) Finding the area of compound shapes (M269, M996)
- ☐ (R) Finding the area of parallelograms (M291)
- ☐ Finding the area of trapezia (M705)
- ☐ (R) Identifying parts of circles (M595)
- ☐ Finding the circumference of circles (M169)
- ☐ Finding the area of circles (M231)

Week 1

Unit 15: Line symmetry and reflection

Learning Objectives:

- ☐ Symmetry(M523)
- ☐ Reflection (M290)

Weeks 2, 3, 4 & 5

Unit 16: Data handling cycle

Learning Objectives:

- ☐ Designing and using questionnaires (M493)
- ☐ (R) Collecting and recording data using tables (M945)
- ☐ (R) Drawing and interpreting tally charts (M597)
- ☐ (R) Drawing and interpreting pictograms (M644)
- ☐ (R) Drawing and interpreting bar charts (M460, M738)
- ☐ Draw and interpret pie charts (M574, M165)
- ☐ Draw and interpret line graphs (M140, M183)
- ☐ Drawing and interpreting frequency polygons (U840)
- ☐ Presenting data and making conclusions (M450)
- ☐ Comparing populations using diagrams (U520)

Weeks 6 & 7

Unit 17: Measures of location

Learning Objectives:

- ☐ (R) Averages and the range (M328, M934, M841, M940)
- ☐ Finding averages from frequency tables (M127)
- ☐ Finding averages from grouped data (M287)
- ☐ Choosing suitable averages and solving problems (M440)