## Year 8 Summer 1

## Emerging (Support) <br> Expected (Core) <br> Exceeding (Extension) <br> Pythagoras' Theorem and Trigonometry

- Draw right-angled triangles
- $\quad$ Square numbers up to $10^{2}$
- Square roots of numbers
- Name the sides of rightangled triangle
- Investigate Pythagoras' theorem
- Calculate the longest side
- Opposite, adjacent and hypotenuses
- Pythagoras theorem, trigonometry and problem solving
- Name the sides of right-angled triangle
- Investigate Pythagoras' theorem
- Calculate the longest side
- Calculate shorter side
- Pythagoras' theorem and problem solving
- Opposite, adjacent and hypotenuses
- Trigonometry and missing angles
- Trigonometry and missing angle
- Pythagoras theorem, trigonometry and problem solving
- Name the sides of rightangled triangle
- Investigate Pythagoras' theorem
- Calculate the longest side
- Calculate shorter side
- Pythagoras' theorem and problem solving
- Opposite, adjacent and hypotenuses
- Trigonometry and missing angles
- Pythagoras theorem, trigonometry and problem solving


## Percentages

- Part as a percentage of the whole
- $10, \%, 20 \%, 30 \% 40 \%, 50 \%$ of amount
- $5 \% .15 \%, 35 \%, 95 \%$ of amounts
- Percentage of amount
- Percentage increase and decrease
- Multiplier
- Repeated percentages
- Part as a percentage of the whole
- $5 \% .15 \%, 35 \%, 95 \%$ of amounts
- Percentage of amount
- Percentage of amount
- Percentage increase and decrease
- Multiplier
- Repeated percentages
- Simple and compound interest
- Part as a percentage of the whole
- $5 \% .15 \%, 35 \%, 95 \%$ of amounts
- Percentage of amount
- Percentage of amount
- Percentage increase and decrease
- Multiplier
- Repeated percentages
- Simple and compound interest

| - Percentages and problem solving | - Percentages and problem solving | - Growth and decay <br> - Percentages and problem solving |
| :---: | :---: | :---: |
| Ratio and Proportion |  |  |
| - Simplify ratio <br> - Share quantity in a given ratio <br> - Ratio when part is given <br> - Ratio and proportion <br> - Proportion and drawing <br> - Distance, time and speed <br> - Ratio, proportion and problem solving | - Share quantity in a given ratio <br> - Ratio when part is given <br> - Ratio and proportion <br> - Exchange rate <br> - Proportion and recipe <br> - Conversion graphs <br> - Distance, time and speed <br> - Ratio, proportion and problem solving | - Share quantity in a given ratio <br> - Ratio when part is given <br> - Ratio and proportion <br> - Proportion and recipe <br> - Conversion graphs <br> - Distance, time and speed <br> - Volume, density and mass <br> - Ratio, proportion and problem solving |

## Year 8 Summer 2

| Emerging (Support) | Expected (Core) | Exceeding (Extension) |
| :---: | :---: | :---: |
| Transformation of shapes |  |  |
| - Plan and side elevation <br> - Congruent <br> - Reflection <br> - Rotation <br> - Translation <br> - Enlargement without centre <br> - ICT and transformation <br> - Transformation | - Similar shape <br> - Reflection <br> - Rotation <br> - Translation <br> - Enlargement with or without centre <br> - Fractional scale factor <br> - ICT and transformation | - Similar shape <br> - Reflection <br> - Rotation <br> - Translation <br> - Enlargement with or without centre <br> - Fractional scale factor <br> - ICT and transformation |
| End-of-year Assessment (Last two weeks before Christmas Holiday) |  |  |
|  | Graphs |  |

- Coordinates
- Coordinates of midpoints
- Coordinates and properties of 2D shapes
- Conversion graphs
- Draw graphs from table of values
- ICT and graphs
- Graphs and problem solving
- Coordinates of midpoints
- Coordinates and properties of 2D shapes
- Conversion graphs
- Draw graphs from table of values
- Gradient and y-intercept
- ICT and graphs
- Graphs and problem solving
- Coordinates and properties 2D of shapes
- Conversion graphs
- Draw graphs from table of values
- Gradient and y-intercept
- Drawing graphs from gradient and y-intercept
- Real-life graphs
- ICT and graphs
- Quadratic graphs
- Graphs and problem solving


## Construction and Loci

- Draw and measure angles
- Draw triangles and quadrilaterals to scale
- Making patterns using compasses, ruler and protractors
- Perpendicular bisectors of line segments
- Perpendicular line from a point
- Construction and ICT
- Construction and problem solving
- Making patterns using compasses, ruler and protractors
- Perpendicular bisectors of line segments
- Perpendicular line from a point
- Construct triangles and other shapes
- Construction and ICT
- Construction and problem solving
- Perpendicular bisectors of line segments
- Perpendicular line from a point
- Construct triangles and other shapes
- Loci
- Construct and shade in a region
- Construction and ICT
- Construction and problem solving

