

Subject	Maths
Term	Spring 1
Duration (Approx)	2 Weeks
Module	Graphs

Factual knowledge to be taught and assessed, depending on progression made (including subject specific vocabulary).

- Coordinates in four quadrants
- Coordinates and straight lines
- Horizontal and vertical graphs
- Real-life graphs
- Conversion graphs
- Graphs and formulae
- Drawing straight-line graphs
- Equation of a straight line
- Graphs of linear functions
- Equation of a straight line
- Curved graphs
- Midpoints of coordinate pairs
- Graphs of implicit functions
- Time series

Skills and concepts to be developed and assessed (linking to identified AOs)

- Recognise, sketch and produce graphs of linear and quadratic functions
- Develop algebraic and graphical fluency, including understanding linear and simple quadratic functions.
- Model situations or procedures by translating them into algebraic expressions or formulae and by using graphs.
- Develop algebraic and graphical fluency, including understanding linear and simple quadratic functions.

Formative Assessment/key piece of work prior to end of unit:

- Questioning in class.
- Paired work.
- Independent completion of exercises.
- Use of homework.



Summative Assessment:

One lesson written assessment at end of half term.

Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

- Basic algebra substitution skills.
- Plotting coordinates in the first quadrant.

Spelling-Punctuation-Grammar How will you promote high standards within this module?

- Emphasis given to key words.
- Definitions provided.
- Spellings corrected where necessary when marking.
- Develop the ability to communicate mathematically.

Link forward: where next for the learning?

Algebra topics are revisited and extended throughout the year.



Subject	Maths
Term	Spring 1
Duration (Approx)	2 Weeks
Module	Mental Calculations

Factual knowledge to be taught and assessed, depending on progression made (including subject specific vocabulary).

- Rounding
- Mental addition and subtraction
- Multiply and divide by powers of 10
- Mental multiplication and division
- Mental addition and subtraction problems
- Mental multiplication and division problems

Skills and concepts to be developed and assessed (linking to identified AOs)

- Use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation $a < x \leq b$.
- Begin to model situations mathematically and express the results using a range of formal mathematical representations.
- Select and use appropriate calculation strategies to solve increasingly complex problems.
- Use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation $a < x \leq b$.
- Develop their mathematical knowledge, in part through solving problems and evaluating the outcomes, including multi-step problems.

Formative Assessment/key piece of work prior to end of unit:

- Questioning in class.
- Paired work.
- Independent completion of exercises.
- Use of homework.

Summative Assessment:

One lesson written assessment at end of half term.

Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

- Number bonds
- 4 operations with numbers.

Spelling-Punctuation-Grammar How will you promote high standards within this module?

- Emphasis given to key words.
- Definitions provided.
- Spellings corrected where necessary when marking.
- Develop the ability to communicate mathematically.

Link forward: where next for the learning?

Number topics are built upon throughout the year.

Subject	Maths
Term	Spring 1
Duration (Approx)	2 Weeks
Module	Statistics

Factual knowledge to be taught and assessed, depending on progression made (including subject specific vocabulary).

- Planning a survey
- Collecting data
- Pie charts
- Bar charts and frequency diagrams
- Averages
- Averages from frequency tables
- Scatter graphs and correlation
- Stem-and-leaf diagrams
- Interpreting statistical diagrams
- Comparing distributions.
- Comparing data sets
- Statistical reports

Skills and concepts to be developed and assessed (linking to identified AOs)

- Explore what can and cannot be inferred in statistical and probabilistic settings, and begin to express their arguments formally.
- Construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data.
- Describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers).



Formative Assessment/key piece of work prior to end of unit:

- Questioning in class.
- Paired work.
- Independent completion of exercises.
- Use of homework.

Summative Assessment:

One lesson written assessment at end of half term.

Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

- This topic will build upon the statistics module in Year 7.

Spelling-Punctuation-Grammar How will you promote high standards within this module?

- Emphasis given to key words.
- Definitions provided.
- Spellings corrected where necessary when marking.
- Develop the ability to communicate mathematically.

Link forward: where next for the learning?

Data topics are built upon throughout the year. This topic is revisited and extended in the spring term of year 9.

Subject	Maths
Term	Spring 2
Duration (Approx)	2 Weeks
Module	Transformations

Factual knowledge to be taught and assessed, depending on progression made (including subject specific vocabulary).

- Reflection
- Reflection symmetry
- Rotation
- Rotational symmetry
- Translation
- Tessellation
- Combined transformations
- Enlargements

Skills and concepts to be developed and assessed (linking to identified AOs)

- Identify properties of, and describe the results of, translations, rotations and reflections applied to given figures.
- Describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric.
- Identify and construct congruent triangles, and construct similar shapes by enlargement, with and without coordinate grids.

Formative Assessment/key piece of work prior to end of unit:

- Questioning in class.
- Paired work.
- Independent completion of exercises.
- Use of homework.
- Key marking task.



Summative Assessment:

One lesson written assessment at end of half term.

Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

- This topic will be revisited and extend transformations taught in Year 7.

Spelling-Punctuation-Grammar How will you promote high standards within this module?

- Emphasis given to key words.
- Definitions provided.
- Spellings corrected where necessary when marking.
- Develop the ability to communicate mathematically.

Link forward: where next for the learning?

Geometry and Measure topics are built upon throughout the year.

Subject	Maths
Term	Spring 2
Duration (Approx)	2 Weeks
Module	Equations

Factual knowledge to be taught and assessed, depending on progression made (including subject specific vocabulary).

- One-step equations
- Equation puzzles
- Two-step equations
- Equations with brackets
- Making equations
- Real life equations
- Equations with fractions.

Skills and concepts to be developed and assessed (linking to identified AOs)

- Use algebraic methods to solve linear equations in 1 variable (including all forms that require rearrangement).
- Substitute values in expressions, rearrange and simplify expressions, and solve equations.
- Interpret mathematical relationships both algebraically and geometrically.

Formative Assessment/key piece of work prior to end of unit:

- Questioning in class.
- Paired work.
- Independent completion of exercises.
- Use of homework.



Summative Assessment:

One lesson written assessment at end of half term.

Building Retention: What prior learning must be built upon/revisited and how will it be assessed?

- This topic builds upon basic algebra skills

Spelling-Punctuation-Grammar How will you promote high standards within this module?

- Emphasis given to key words.
- Definitions provided.
- Spellings corrected where necessary when marking.
- Develop the ability to communicate mathematically.

Link forward: where next for the learning?

The next algebra topic is taught in the summer term