

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 including with negative numbers.
- Plotting horizontal and vertical lines.
- Plotting straight-line graphs
- The equation of a straight line
- Real-life graphs
- Line graphs for time series

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

- Work with coordinates in all 4 quadrants.
- Find approximate solutions to contextual problems from given graphs of a variety of functions.
- Substitute numerical values into formulae and expressions, including scientific formulae.
- Develop algebraic and graphical fluency, including understanding linear and simple quadratic functions.
- Move freely between different graphs.
- Identify variables and express relations between variables algebraically and graphically.
- Begin to model situations mathematically.

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 built upon throughout the year. Each half term a different aspect of geometry and measure is revisited and extended.

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 and collecting data
- Organising data
- Reading lists and tables
- Reading and drawing pictograms
- Reading and drawing bar charts
- Reading and interpreting graphs, charts and pie charts
- Reading diagrams
- Averages - the mode, median and mean.
- Comparing data sets - range and average.
- Line graphs.
- Planning a statistical enquiry.
- Tally charts and frequency tables.
- Designing a questionnaire.

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

- Recall facts, terminology and definitions, use and interpret notation correctly and carry out routine procedures requiring multi-step solutions.
- Make deductions, inferences and draw conclusions. Construct chains of reasoning and interpret and communicate information accurately. Present and evaluate arguments and proofs.
- Translate problems into processes, make and use connections in mathematics, interpret and evaluate solutions.



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 be an introduction to statistics.

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.

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

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

- Symmetry
- Reflection
- Translation
- Rotation
- Tessellation
- Enlargement

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

- Recall facts, terminology and definitions, use and interpret notation correctly and carry out routine procedures requiring multi-step solutions.
- Make deductions, inferences and draw conclusions. Construct chains of reasoning and interpret and communicate information accurately. Present and evaluate arguments and proofs.
- Translate problems into processes, make and use connections in mathematics, interpret and evaluate solutions.

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 be an introduction to transformations.

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. Year 8 Module 9 revisits this topic in the Spring Term.

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).

- Operations
- Inverse operations
- Symbols and values
- Solving simple Equations
- Multiplying and dividing terms
- Balancing calculations
- Two step equations
- Solving equations with unknowns on both sides
- Constructing equations

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

- Recall facts, terminology and definitions, use and interpret notation correctly and carry out routine procedures requiring multi-step solutions.
- Make deductions, inferences and draw conclusions. Construct chains of reasoning and interpret and communicate information accurately. Present and evaluate arguments and proofs.
- Translate problems into processes, make and use connections in mathematics, interpret and evaluate solutions.

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 Year 8.

Subject	Maths
Term	Spring 2
Duration (Approx)	2 Weeks
Module	Factors and Multiples

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

- Factors
- Multiples
- Tests of divisibility
- Square Numbers
- Square roots
- Prime numbers/factors
- LCM and HCF

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

- Recall facts, terminology and definitions, use and interpret notation correctly and carry out routine procedures requiring multi-step solutions.
- Make deductions, inferences and draw conclusions. Construct chains of reasoning and interpret and communicate information accurately. Present and evaluate arguments and proofs.
- Translate problems into processes, make and use connections in mathematics, interpret and evaluate solutions.

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 be an introduction to factors and multiples.

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. Year 8 Module 1 revisits this topic in the Autumn term.