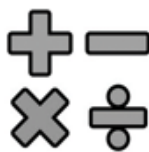


Year Group: 9

Learning Journey

Foundation A



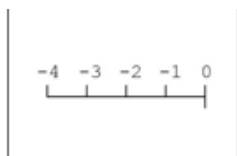
1. Non Calculator Arithmetic

- Addition
- Subtraction
- Multiplication
- Division



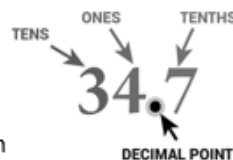
2. Multiples, Factors & Primes

- Multiples
- Factors
- Primes
- Prime Factor Trees
- LCM/HCF



3. Negative Number

- Number lines
- Addition/Subtraction
- Multiplication/ Division



4. Decimals

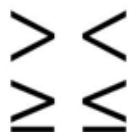
- Place Value
- Ordering
- Addition/Subtraction
- Multiplying/Dividing by 10,100,1000
- Converting Units
- Multiplication/ Division

Assessment Window 1



9. Inequalities

- Number line
- Solving inequalities



Assessment Window 2



8. Algebra

- Function Machines
- Expressions
- Collecting Like Terms
- Expanding brackets
- Solving Equations
- Substitution



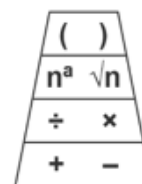
$$\frac{2^5}{2^3}$$

7. Powers and roots

- Square Numbers / roots
- Indices
- Laws of indices
- Standard form

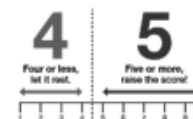
6. Number

- BIDMAS



5. Rounding and Estimating

- 10s, 100s, 1000s
- Decimal places
- Significant figures
- Estimation

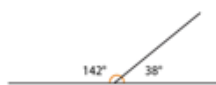
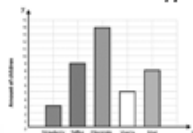


10. Sequences

- Term to term
- Nth term

11. Data

- Charts
- Averages



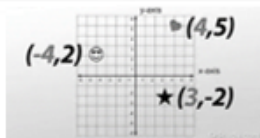
12. Angles

- Basic angle rules
- Triangles
- Quadrilaterals



13. Percentages

- Writing percentages
- With/without calculators
- FDP
- Increase/Decrease



14. Graphs and Equations

- Coordinates
- Straight line graphs

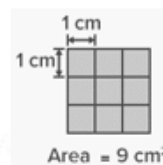


15. Probability

- Basic probability
- Calculating probabilities
- Listing outcomes
- Two way tables
- Frequency tree diagrams
- Tree diagrams

16. Area & Perimeter

- Area
- Perimeter
- Compound shapes
- Constructions



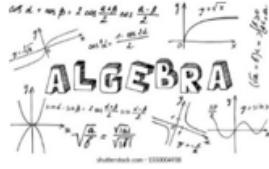
Assessment Window 3



Year Group: 9
Learning Journey
Foundation



- 1. Number**
- Arithmetic
 - Approximations
 - Multiples & Factors
 - Powers & roots
 - Fractions.



- 2. Algebraic Expressions**
- Simplifying expressions
 - Expanding
 - Factorising



- 3. Equations & inequalities**
- Solving linear equations.
 - Representing inequalities on a number line.
 - Solving inequalities

Assessment Window 1



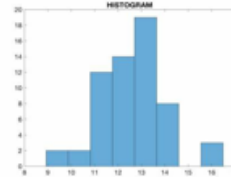
Assessment Window 2



- 7. Percentages**
- Percentage of an amount
 - Percentage increase/decrease
 - Reverse percentages
 - Compound growth



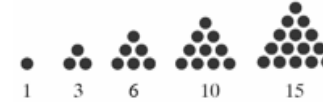
- 6. Analysing data**
- Pictograms
 - Two way tables
 - Bar charts
 - Stem & Leaf
 - Pie Charts
 - Scatter plots
 - Averages



- 5. Formulae and functions**
- Writing formulae
 - Substitution
 - Rearranging equations

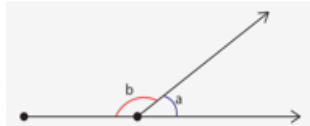
$$E=mc^2$$

- 4. Sequences**
- Term to term rules
 - nth term



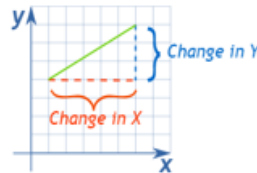
8. Angles & 2D shapes

- Basic angle rules
- Angles in triangles
- Angles in quadrilaterals
- Angles around parallel lines



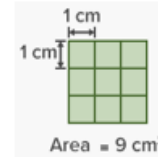
9. Graphs & Equations

- Plotting graphs
- Intercept/gradients



10. Probability

- Calculating probabilities
- Probability diagrams



11. Area & Perimeter

- Area
- Perimeter
- Circles
- Compound shapes

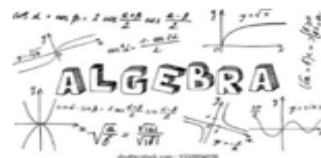
Assessment Window 3



Year Group: 9 Learning Journey Higher



- 1. Number**
- Approximations
 - Laws of indices
 - Standard form
 - Surds



- 2. Formulae**
- Substitution
 - Writing Formulae
 - Rearranging

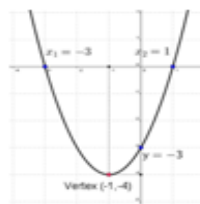


- 3. Sequences**
- nth term
 - quadratic
 - cubic

Assessment Window 1



Assessment Window 2



6. Graphs and Equations

- Straight line
- Quadratic
- Cubic
- Reciprocal
- Circle
- Trigonometric
- Transforming



5. Ratio/Proportion

- Simplifying
- Dividing into given ratio
- Indirect and direct
- Algebraic proportionality

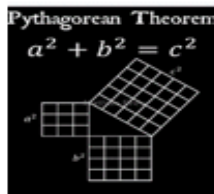


4. Percentages

- Converting F/D/P
- Increase/Decrease
- Inverse
- Compound
- Problem solving

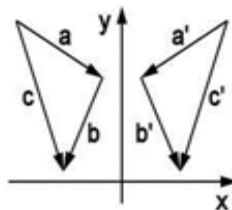
7. Pythagoras/Trigonometry

- 3D Pythagoras
- Trigonometry
- Sine Rule
- Cosine Rule
- Problem solving



8. Transformations

- Reflections
- Rotations
- Translations
- Enlargements
- Combinations



9. Quadratics

- Factorising
- Completing the square
- Quadratic formula
- Problem solving

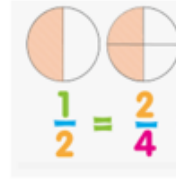
Assessment Window 3



Year Group: 10 Learning Journey Foundation A



1. Algebra
Expressions
Solving linear equations



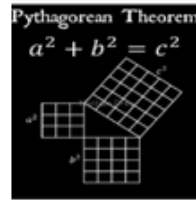
2. Fractions
Simplifying fractions
Mixed numbers/Improper fractions
Operations with fractions



3. Percentages
FDP
Percentage of amounts
Increase/decrease

6. Pythagoras Theorem

Finding missing lengths



5. Compound measures

Converting units
Speed, distance, time
Pressure, force, area
Density, mass, volume

Assessment Window 1



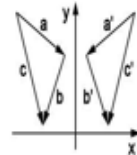
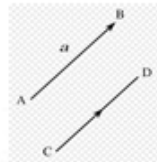
4. Ratio & Proportion

Ratio
Direct Proportion
Inverse proportion
Recipes



7. Vectors

Writing, drawing
Vector Geometry
Problem solving



8. Transformations

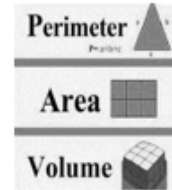
Reflections
Rotations
Translations
Enlargements

Assessment Window 2



9. Area and perimeter

Area & Perimeter
Circles
Volume

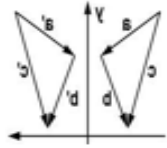


Assessment Window 3

10. Constructions, Bearing and Loci
Drawing constructions using the protractor and Compass



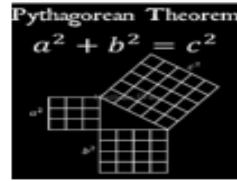
Year Group: 10 Learning Journey Foundation



1. Transformations

How shapes can be changed

- Reflections
- Rotations
- Translations
- Enlargements



2. Pythagoras and Trigonometry

Finding missing sides and angles in triangles

Assessment Window 1



3. Circles

Use key circle formulae to solve problems involving circles



6. Algebra

Review of Solving Equations leading onto solving Simultaneous Equations

Assessment Window 2



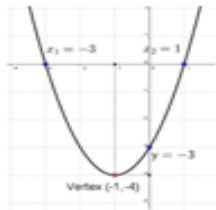
5. Compound measures

- Speed, distance and time
- Pressure, force, area
- Density, mass, volume



4. Ratio and Proportion

Solving problems

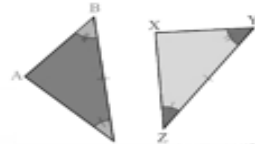


7. Types of Graphs

- Straight line
- Quadratic
- Cubic
- Reciprocal

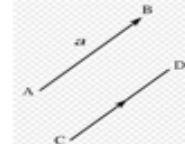
8. Similarity and Congruence

Similar shapes and congruent triangles



9. Vectors

- Writing, drawing
- Vector Geometry
- Problem solving



10. Constructions, Bearing and Loci

Drawing constructions using the protractor and Compass



Assessment Window 3

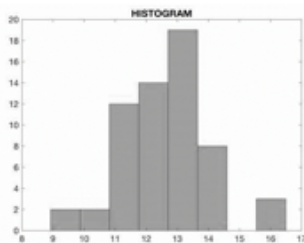


CAREERS: At every available opportunity, teachers will introduce and promote careers links to the topics being studied (See Careers booklets).

Year Group:
10 Learning
Journey
Higher

Function Notation
 $f(x) = 6 - x^2$
 ① Find $f(-2) = 6 - (-2)^2 = 6 - 4 = 2$
 ② Find $f(1) = 6 - (1)^2 = 6 - 1 = 5$

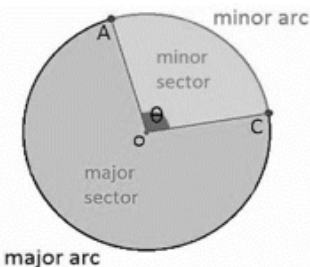
1. Functions
Using function notation, generating composite and inverse functions, and solving function equations.



2. Averages and Displaying Data

- Mean
- Mode
- Median
- Range

Different types of graphs and charts.



3. Circles and 3D Shapes

- Area and perimeter of circles and sectors
- Volume and surface area of 3D shapes

Assessment Window 1

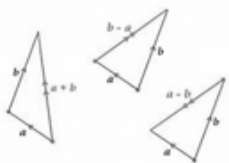


Assessment Window 2



7. Vectors
Working with column vectors and solving vector geometry problems

ADDITION & SUBTRACTION OF VECTORS



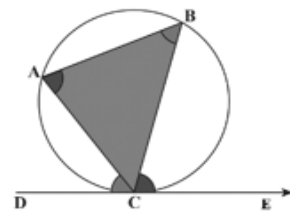
$$\begin{aligned} 3x + 2y &= 12 \\ 5x + 3y &= 19 \\ x &= \frac{2}{1} = 2 \\ \therefore y &= 3 \end{aligned}$$

6. Simultaneous Equations
Solving linear and quadratic simultaneous equations

5. Algebraic Fractions
Simplifying and carrying out the four operations with algebraic fractions.

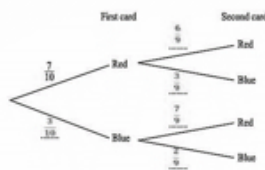
Simplify $\frac{x+2}{x} \times \frac{x}{x+2}$

$$\frac{(x+2)^2 - x^2}{x(x+2)} = \frac{x^2 + 4x + 4 - x^2}{x^2}$$

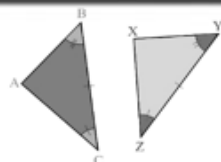
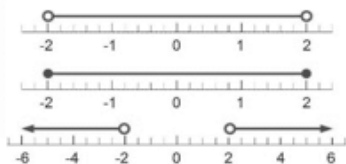


4. Angle Rules and Circle Theorems
Rules regarding angles in parallel lines and circle theorems

8. Probability
Calculating basic probabilities, and using Venn Diagrams. Conditional and Unconditional probability problems and using Probability Trees.

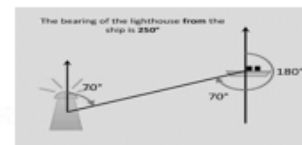


9. Inequalities
Representing on a number line. Solving linear, quadratic and compound inequalities.



10. Similarity and Congruence
Similar Shapes and Congruent Triangles

11. Constructions Loci and Bearings
Constructing perpendicular bisectors, equilateral triangles and other constructions. Solving Loci and Bearings problems.



Assessment Window 3



CAREERS: At every available opportunity, teachers will introduce and promote careers links to the topics being studied (See Careers booklets).

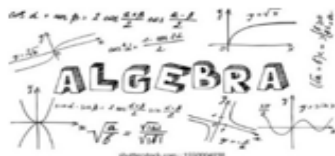
Year Group: 11 Learning

Journey Foundation



1. Review/finish content

- Core focus in Number based skills
- Staff prioritize topics dependent on groups strengths and weaknesses



2. Algebra

- Core focus to review Algebra based topics.
- Staff to prioritize topics dependent on groups strengths and weaknesses

3. Prep for Mocks

- Revision techniques
- Targeted Exam questions
- Calculator skills
- Using formulae

Assessment Window 1

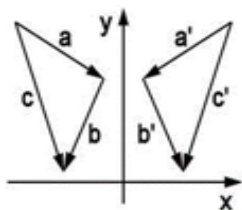


Assessment Window 2



6. Prep for Mocks

- Revision techniques
- Targeted Exam questions
- Calculator skills
- Using formulae



5. Geometry

- Core focus to review Geometry based topics.
- Staff to prioritize topics dependent on groups strengths and weaknesses

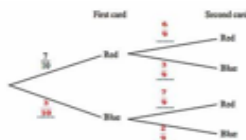


4. Ratio and Proportion

- Core focus to review Ratio/proportion based topics.
- Staff to prioritize topics dependent on groups strengths and weaknesses

7. Probability

- Core focus to review Probability based topics.
- Staff to prioritize topics dependent on groups strengths and weaknesses



8. Statistics

- Core focus to review Statistic based topics.
- Staff to prioritize topics dependent on groups strengths and weaknesses

9. Boosters/Prep for Exams

- Revision techniques
- Targeted Exam questions
- Calculator skills
- Using formulae

Assessment Window 3

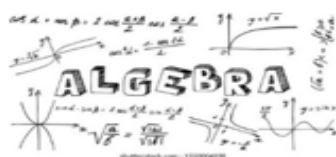


Year Group: 11 Learning

Journey Higher



- 1. Review/finish content**
 - Core focus in Number based skills
 - Staff prioritize topics dependent on groups strengths and weaknesses



- 2. Algebra**
 - Core focus to review Algebra based topics.
 - Staff to prioritize topics dependent on groups strengths and weaknesses

- 3. Prep for Mocks**
 - Revision techniques
 - Targeted Exam questions
 - Calculator skills
 - Using formulae

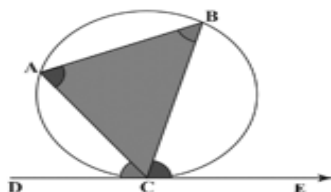
Assessment Window 1



Assessment Window 2



- 6. Prep for Mocks**
 - Revision techniques
 - Targeted Exam questions
 - Calculator skills
 - Using formulae



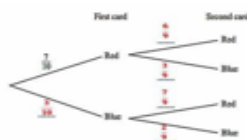
- 5. Geometry**
 - Core focus to review Geometry based topics.
 - Staff to prioritize topics dependent on groups strengths and weaknesses

4:3

- 4. Ratio and Proportion**
 - Core focus to review Ratio/proportion based topics.
 - Staff to prioritize topics dependent on groups strengths and

7. Probability

- Core focus to review Probability based topics.
- Staff to prioritize topics dependent on groups strengths and weaknesses



8. Statistics

- Core focus to review Statistic based topics.
- Staff to prioritize topics dependent on groups strengths and weaknesses

9. Boosters/Prep for Exams

- Revision techniques
- Targeted Exam questions
- Calculator skills
- Using formulae

Assessment Window 3



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