Mathematics KS4: Year 10 Higher - 10a1, 10b1 (24/25)



Stage 12

- The product rule for counting
- Repeated percentage change
- Similar shapes (Area and volume)
- Circle Theorems

Stage 11

- · Cumulative frequency graphs
- Box plots



Stage 12

- · Direct and inverse proportion
- Quadratic formula
- Factorising harder quadratics



Stage 11

- Expanding triple brackets
- Parallel and perpendicular

SUMMER 3:2

Inequalities on graphs

Stage 11

- Rearranging harder formulae
- Enlarging with negative scale factors

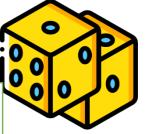


Stage 11

- Recurring decimals to fractions
- Fractional and negative indices

SUMMER 3:1

- Stage 10 • Sector areas and arc lengths
- Spheres and cones
- SOH CAH TOA trigonometry
- Exact trig vales



Stage 9

- · Loci and construction
- Bearings
- Vectors
- Probability trees
- Venn diagrams and simple set notation

SPRING

2:2

Stage 10

- Writing ratio as a fraction or linear function
- Simultaneous equations (algebraically and
- Direct and inverse proportion
- Similar shapes (lengths)

SPRING

2:1

AUTUMN

1:2



Stage 9

- · Changing the subject of a formula
- Gradient of a line
- Equation of a line
- Angles in parallel lines
- Angles in polygons

Stage 8

- Expanding and factorising
- Solving quadratics by factorising
- Drawing quadratic graphs
- Drawing cubic/reciprocal graphs

Stage 8

- Standard form
- Reverse percentages
- Speed, density and pressure
- Real life and distance time graphs





Stage 6

- **Expanding and** factorising
- Plans and elevations
- Transformations
- Scatter graphs

Stage 7

- · Compound interest and depreciation
- Sequences (nth term)
- Inequalities
- Forming and solving equations

Stage 7

- Pythagoras Theorem
- Surface area
- Volume of a prism
- Cylinders
- Averages from frequency tables
- Probability



Stage 6

- Estimation
- Error intervals
- Prime factors, LCM, HCF
- Indices

Stage 5

- Area and circumference of circles
- Frequency trees
- Two-way tables
- Pie charts

Stage 5

- Percentage change
- Exchange rates
- - Solving equations

AUTUMN 1:1

OUR LEARNING JOURNEY

2

Mathematics KS4: Year 10 Higher - 10a2, 10a3, 10b2

(24/25)

Stage 11

- Recurring decimals to fractions
- · Fractional and negative indices

Stage 10

- Sector areas and arc lengths
- Spheres and cones
- SOH CAH TOA trigonometry

Stage 10

Writing ratio as a fraction or linear function

Simultaneous equations (algebraically and

Exact trig vales

Stage 10

- Direct and inverse proportion
- Similar shapes (lengths)



Stage 11

- · Recurring decimals to fractions
- Fractional and negative indices
- **Expanding triple brackets**
- Parallel and perpendicular lines



Stage 9

- Bearings
- Vectors
- **Probability trees**

graphically)

Venn diagrams and simple set

SUMMER 3:1

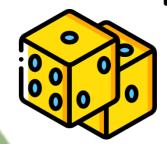
Stage 9

· Angles in parallel lines

SUMMER

3:2

- Angles in polygons
- · Loci and construction



Stage 8

- Speed, density and pressure
- Real life and distance time graphs
- **Expanding and factorising quadratics**
- Solving quadratics by factorising
- Drawing quadratic graphs
- Drawing cubic/reciprocal graphs

Stage 9

- Changing the subject of a formula
- Gradient of a line
- Equation of a line



Stage 8

- Standard form
- Reverse percentages

Stage 7

- Pythagoras Theorem
- Surface area

SPRING

2:2

- Volume of a prism
- Cylinders
- Averages from frequency tables
- Probability

Stage 7

- Compound interest and depreciation
- Sequences (nth term)
- Inequalities
- Forming and solving equations

- **Expanding and** factorising
- Plans and elevations

Stage 6

- Transformations
 - Scatter graphs

Stage 6

- Estimation
- Error intervals
- Prime factors, LCM, HCF

AUTUMN

1:1

Indices

Stage 4

- Writing and simplifying ratio
- Fractions
- Conversions and units
- Scale drawings

AUTUMN 1:2

Stage 4

Fractions of an

Drawing graphs

amount

Percentages

Frequency polygons

Stage 5 Percentage change

- **Exchange rates**
- Solving equations

Stage 5

- Area and circumference of circles
- Frequency trees
- Two-way tables
- Pie charts

Stage 3

SPRING

2:1

- Angles
 - **Averages**
 - Stem and leaf
 - diagrams

Stage 3

- Fractions, decimals, percentages conversions
- Using a calculator
- Substitution
- Area and perimeter

2

OUR LEARNING JOURNEY

Mathematics KS4: Year 10 Foundation – 10a4, 10a5, 10b3, 10b4 (24/25)Stage 8 Stage 7 Stage 7 Pythagoras Averages from frequency Standard form **Surface Area** tables **Reverse percentages Volume of a Prism Probability** Cylinders Stage 7 Compound interest and **SUMMER** depreciation 3:2 Sequences (nth term) Inequalities Forming and solving equations Stage 6 Estimating **Error intervals** Stage 6 Prime factors, HCF and LCM **Transformations SUMMER Scatter graphs** 3:1 **Expanding and factorising** Plans and elevations Stage 5 **Solving equations** Area and circumference of circles **SPRING Frequency trees** Two-way tables 2:2 Pie charts Stage 5 Stage 3 Stage 4 Stage 4 **Percentages Angles** Function machines **SPRING** Percentages Percentage change **Averages** Writing and Frequency polygons 2:1 **Exchange rates Bar charts** Fractions of an simplifying ratio Ratio Stem and leaf Stage 3 amount **Fractions** diagrams Substitution Drawing graphs **Conversions and** Solving one step units equations Scale drawings Stage 3 Area and perimeter Calculation problems Fractions, decimals, Stage 2 **AUTUMN** Simplifying Algebra percentages 1:2 **Writing expressions** conversions Using a calculator **Probability** Stage 1 Stage 2 Stage 1 Place value **Addition and Factors and** subtraction multiples **AUTUMN** Writing and **Negative numbers** Multiplication 1:1 **OUR LEARNING Powers and roots** and division simplifying **BIDMAS** Rounding fractions **Systematic listing** Coordinates **Pictograms JOURNEY** 2