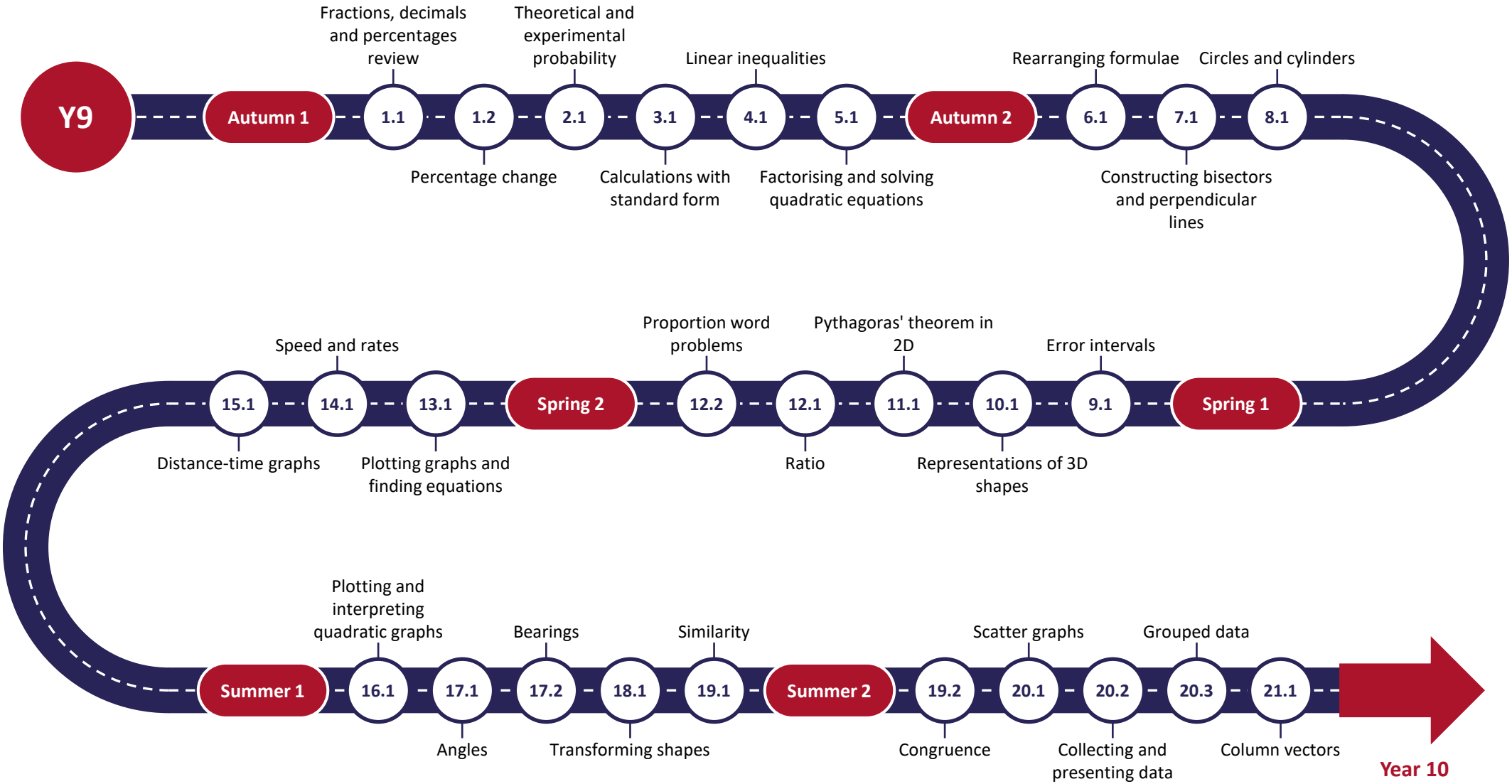
Year 9 Maths Learning Journey

Foxford School · Sparx Maths · 2026–27

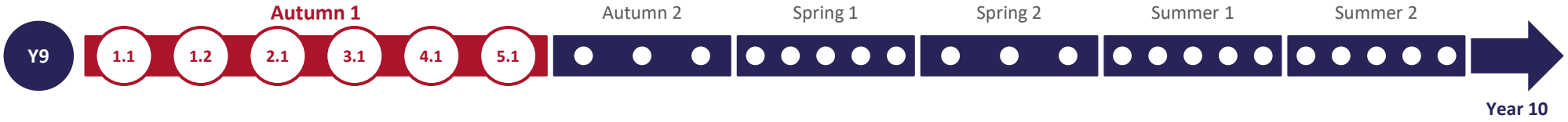


Year 9 · Autumn 1 Learning Plan

31 Aug – 23 Oct 2026 · Sparx Maths

Week beginning	Unit	What I will learn (Sparx code)	Key vocabulary
31 Aug 7 Sep	**1.1 Fractions, decimals and percentages review**	**U888** Converting between fractions, decimals and percentages **U594** Ordering fractions, decimals and percentages **U881** Finding fractions of amounts without a calculator **U916** Finding fractions of amounts with a calculator **U554** Finding percentages of amounts without a calculator **U349** Finding percentages of amounts with a calculator	Percentage (%) · Decimal · Multiplier · Percentage change · Percentage increase · Percentage decrease · Reverse percentages
14 Sep 21 Sep	**1.2 Percentage change**	**U773** Percentage change without a calculator **U671** Percentage change with a calculator **U286** Finding original values in percentage calculations **U278** Finding the percentage an amount has been changed by **U533** Simple interest calculations	
28 Sep	**2.1 Theoretical and experimental probability**	**U166** Expected results from repeated experiments **U580** Calculating experimental probabilities **U280** Frequency trees	Proportion · Fraction / Decimal / Percentage · Theoretical probability · Experimental probability · Sample space · Mutually exclusive events · Independent events · Dependent events
5 Oct	**3.1 Calculations with standard form**	**U264** Multiplying and dividing numbers in standard form **U290** Adding and subtracting numbers in standard form **U161** Standard form with a calculator	Exponent / Index / Power · Positive index · Negative index · Multiply in standard form · Divide in standard form · Ordinary number · Significant figures · Decimal place
12 Oct	**4.1 Linear inequalities**	**U738** Solving inequalities with the unknown on both sides **U145** Solving double inequalities **U337** Constructing and solving inequalities	Inequality · Linear inequality · Greater than (>) · Less than (<) · Greater than or equal to (≥) · Less than or equal to (≤) · Variable · Number line
19 Oct	**5.1 Factorising and solving quadratic equations**	**U178** Factorising quadratic equations of the form x^2+bx+c **U963** Factorising the difference of two squares **U228** Factorising to solve quadratic equations of the form $x^2+bx+c=0$	Quadratic · Quadratic equation · Factorise · Common factor · Double brackets · Difference of two squares · Perfect square trinomial · Roots

Where this half term fits in Year 9

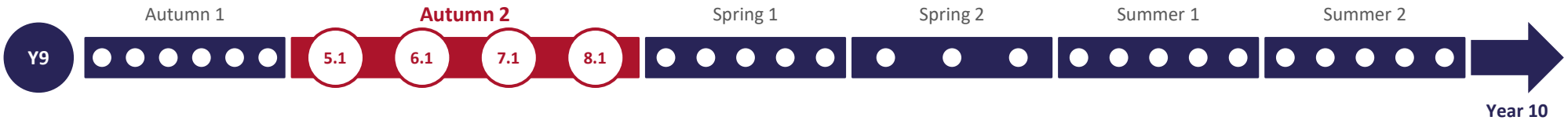


Year 9 · Autumn 2 Learning Plan

2 Nov – 18 Dec 2026 · Sparx Maths

Week beginning	Unit	What I will learn (Sparx code)	Key vocabulary
2 Nov	**5.1 Factorising and solving quadratic equations** *(continued)*	**U178** Factorising quadratic equations of the form x^2+bx+c **U963** Factorising the difference of two squares **U228** Factorising to solve quadratic equations of the form $x^2+bx+c=0$	Quadratic · Quadratic equation · Factorise · Common factor · Double brackets · Difference of two squares · Perfect square trinomial · Roots
9 Nov 16 Nov	**6.1 Rearranging formulae**	**U675** Changing the subjects of formulae with one step **U181** Changing the subjects of formulae with two or more steps	Rearrange a formula · Subject of the formula · Inverse operations · Coefficient · Isolating the variable · Linear formula · Non-linear formula · Substitution into a formula
23 Nov 30 Nov	**7.1 Constructing bisectors and perpendicular lines**	**U787** Constructing bisectors of angles **U245** Constructing perpendicular bisectors and lines	Bisector · Angle bisector · Perpendicular bisector · Midpoint · Perpendicular · Arc · Radius · Intersection point
7 Dec 14 Dec	**8.1 Circles and cylinders**	**U221** Finding the arc length of sectors **U373** Finding the area of sectors **U464** Finding the surface area of cylinders **U915** Finding the volume of cylinders	Circle · Radius · Diameter · Circumference · Chord · Arc · Sector · Tangent

Where this half term fits in Year 9



Year 9 · Spring 1 Learning Plan

4 Jan – 12 Feb 2027 · Sparx Maths

Week beginning	Unit	What I will learn (Sparx code)	Key vocabulary
4 Jan	**9.1 Error intervals**	**U657** Finding error intervals **U108** Truncating decimals **U301** Finding error intervals for truncated numbers	Error interval · Lower bound · Upper bound · Truncation · Degree of accuracy · Significant figures (sf) · Decimal place (dp)
11 Jan	**10.1 Representations of 3D shapes**	**U743** Plans and elevations	Face · Edge · Vertex · Cross-section · Isometric drawing · Plan view · Front elevation · Side elevation
18 Jan 25 Jan	**11.1 Pythagoras' theorem in 2D**	**U385** Using Pythagoras' theorem in 2D **U828** Applying Pythagoras' theorem in 2D	Right-angled triangle · Pythagoras' theorem · Exact value · Length of a side · Hypotenuse · Adjacent side · Opposite side · Square root
1 Feb	**12.1 Ratio**	**U687** Writing and simplifying ratios **U577** Sharing amounts in a given ratio	Ratio · Simplify a ratio · Part-to-part ratio · Part-to-whole ratio · Divide in a ratio · Bar model · Scaling up/down · Proportional reasoning
8 Feb	**12.2 Proportion word problems**	**U721** Solving direct proportion word problems **U357** Solving inverse proportion word problems **U610** Currency conversion	

Where this half term fits in Year 9



Year 9 · Spring 2 Learning Plan

22 Feb – 26 Mar 2027 · Sparx Maths

Week beginning	Unit	What I will learn (Sparx code)	Key vocabulary
22 Feb 1 Mar	**13.1 Plotting graphs and finding equations**	**U741** Plotting straight line graphs **U315** Finding equations of straight line graphs **U669** Interpreting equations of straight line graphs	Coordinate · Origin · Quadrant · Scale · Gradient · x-intercept · y-intercept · Linear equation
8 Mar 15 Mar	**14.1 Speed and rates**	**U151** Calculating with speed **U256** Calculating with rates	Speed · Average speed · Velocity · Distance–time graph · Gradient · Compound measure · Density · Flow rate
22 Mar	**15.1 Distance-time graphs**	**U403** Plotting distance-time graphs **U914** Interpreting distance-time graphs **U462** Calculating speed from distance-time graphs **U966** Plotting distance-time graphs using speeds	Axis (axes) · Gradient · Steep line · Shallow line · Horizontal line · Speed · Constant speed · Acceleration

Where this half term fits in Year 9



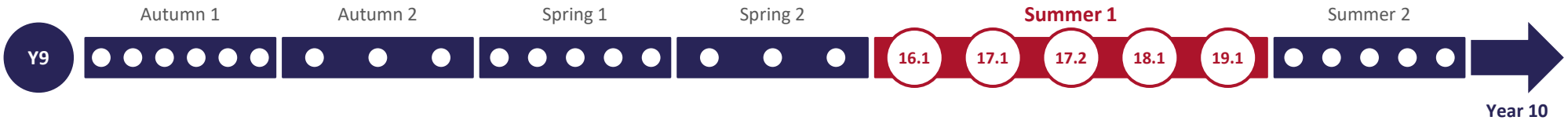
Year 9 · Summer 1 Learning Plan

12 Apr – 28 May 2027 · Sparx Maths

FOXFORD

Week beginning	Unit	What I will learn (Sparx code)	Key vocabulary
12 Apr 19 Apr	**16.1 Plotting and interpreting quadratic graphs**	**U989** Plotting graphs of quadratic functions **U667** Interpreting graphs of quadratic functions **U310** Sketching quadratic graphs **U601** Solving quadratic equations graphically	Quadratic · Symmetry · U-shaped graph · Vertex · Axis of symmetry · Roots · Turning point · Standard form of a quadratic
26 Apr	**17.1 Angles**	**U655** Combining angle facts **U826** Angles on parallel lines **U329** Using quadrilateral properties to find angles **U427** Angles in polygons	Angle · Acute angle · Right angle · Obtuse angle · Reflex angle · Full turn · Vertex · Protractor
3 May	**17.2 Bearings**	**U525** Measuring and drawing bearings **U107** Calculating bearings	
10 May	**18.1 Transforming shapes**	**U196** Translation **U799** Reflection **U696** Rotation **U519** Enlargement by a positive scale factor **M881** Mixed transformations	Translation · Vector · Rotate · Rotation · Centre of rotation · Reflect · Reflection · Line of reflection
17 May	**19.1 Similarity**	**U551** Understanding similarity **U578** Finding unknown sides in similar shapes	Image · Mapping · Transform · Congruent · Congruence · Similar · Similarity · Scale factor
24 May	*Assessment and review week*		

Where this half term fits in Year 9



Year 9 · Summer 2 Learning Plan

7 Jun – 23 Jul 2027 · Sparx Maths

Week beginning	Unit	What I will learn (Sparx code)	Key vocabulary
7 Jun	**19.2 Congruence**	**U790** Understanding congruence **U866** Congruent triangles **U187** Constructing triangles	Image · Mapping · Transform · Congruent · Congruence · Similar · Similarity · Scale factor
14 Jun	**20.1 Scatter graphs**	**U199** Plotting scatter graphs **U277** Interpreting scatter graphs **U128** Using lines of best fit	Statistical diagram · Bar chart · Pie chart · Line graph · Pictogram · Histogram · Frequency table · Frequency density
21 Jun	**20.2 Collecting and presenting data**	**U322** Types of data **U571** Presenting data and making conclusions **U520** Comparing populations using diagrams **U717** Choosing suitable averages and solving problems	
28 Jun 5 Jul	**20.3 Grouped data**	**U312** Interpreting frequency tables with grouped data **U877** Finding averages from grouped data **U840** Drawing and interpreting frequency polygons	
12 Jul 19 Jul	**21.1 Column vectors**	**U632** Understanding column vectors **U903** Adding and subtracting column vectors **U564** Multiplying column vectors by a scalar **U660** Identifying parallel vectors	Vector · Column vector · Component · Magnitude · Direction vector · Displacement · Vector addition · Vector subtraction

Where this half term fits in Year 9

