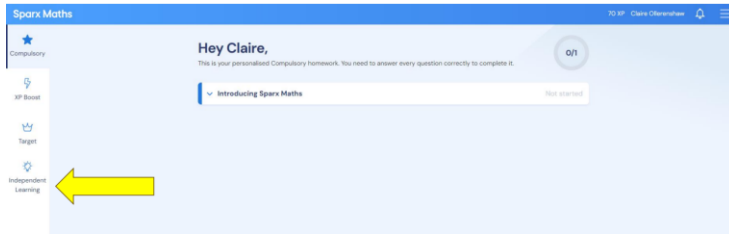


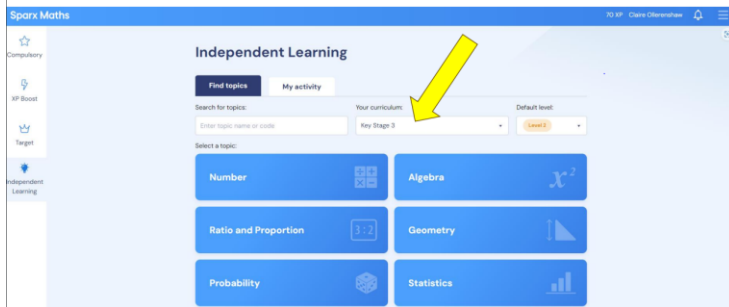
Y9 Knowledge Organisers

SPARX Independent Learning Instructions

1. Click on the Independent learning icon on the left-hand side of your screen.



2. Make sure 'Key Stage 3' is selected under 'Your curriculum'



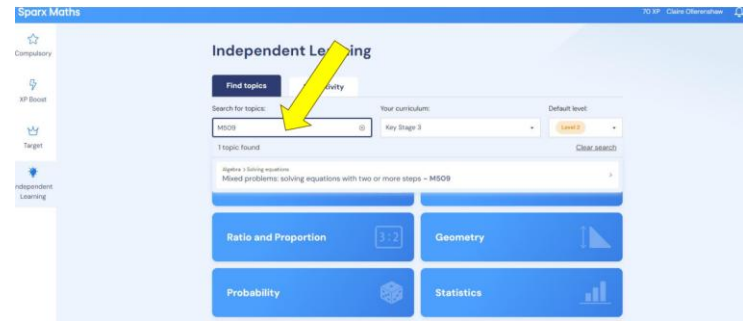
3. Use your Knowledge Organiser to choose the topic that you want to revise:



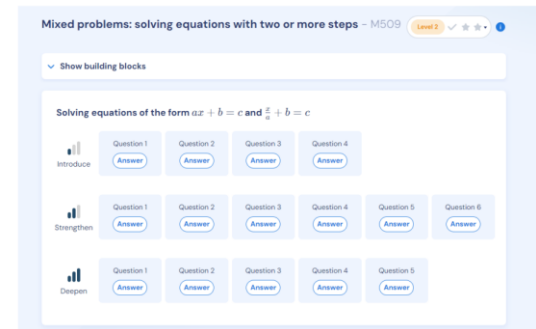
Enter these SPARX codes into the Independent Learning area on SPARX to generate questions to help you revise and consolidate your learning.

Autumn 1	SPARX CODE	Autumn 2	SPARX CODE
Number (4)		Graphs 2 (Straight Line Graphs)	M791
Types of number (rational, irrational, real)		Plotting and reading lines parallel to the axes	M792
Directed numbers (recap of prior learning)	M288, M106, M527	Plotting straight line graphs using a table of values	M932
Problems involving integers and decimals		Identifying the gradient & intercept from equation	M888
Product of primes	M133, M108	Find the gradient & intercept from a graph	M843
HEF & LCM (using Venn diagrams)	M608, M227, M385	Real life graphs	
Calculations with fractions (recap of prior learning)	M385, M931, M157, M119, M265		
(H) Surbs	M135, U338	(H) Equation of a line given two points	M544, M957
Algebra 3 (Forming & Solving Equations & Inequalities)	M509	(H) Equations of perpendicular lines	U898
Solving two step equations & inequalities			
Solving equations with brackets			
Solving equations & inequalities with unknowns on both sides	M554		
Forming & solving equations and inequalities	M138, M732		
Formulae, equation, expansion, identity?			
Rearranging formulae (1 step)	M184		
(H) Rearranging more complex formulae			
Expanding unknowns	M190		

4. Type the corresponding SPARX code into the 'search for topics' box



5. This will give you a set of questions to revise your chosen area of maths. The levels are of increasing difficulty.



When will you sit a test?

w/c 13th Nov	Forming and Solving Equations Topic Test (30 mins)
w/c 11th Dec	Straight Line Graphs Topic Test (30 mins)
w/c 8th Jan	Year 9 End of Term Test (60mins)
w/c 19th Feb	Using Percentages Topic Test (30 mins)
w/c 18th Mar	Maths & Money Topic Test (30 mins)
w/c 15th April	Rotation & Translation Topic Test (30 mins)
w/c 6th May	Year 9 End of Term Test (60mins)
w/c 10th June	Enlargement & Similarity Topic Test (30 mins)

Autumn Term

Enter these SPARX codes into the Independent Learning area on SPARX to generate questions to help you revise and consolidate your learning.

Autumn 1	SPARX CODE	Autumn 2	SPARX CODE
Number (5)		Graphs 2 (Straight Line Graphs)	
Directed numbers (recap)	M288, M106, M527	Plotting and reading lines parallel to the axis	M797
Problems involving integers and decimals	M928, M429	Plotting straight line graphs using a table of values	M932
Product of Primes	M322, M108	Identifying the gradient & intercept from equation	M888
HCF & LCM (using Venn diagrams)	M698, M227, M365	Find the gradient & intercept from a graph	M888
Calculations with Standard Form	M719, M678	Real life graphs	M843
Surds (E)	M135, U338	Equation of a line given the gradient and 1 coordinate	M544
Types of number (rational, irrational, real)		Equation of a line given two points	M544, M957
Algebra 3 (Forming & Solving Equations & inequalities)		Equations of perpendicular lines (E)	U898
Solving two step equations & inequalities	M509		
Solving equations with brackets	M902		
Solving equations with unknowns on both sides	M554		
Solving inequalities with unknowns on both sides	M554		
Forming & solving equations and inequalities	M118, M732		
Rearranging formulae (1 step)	M242		
Rearranging more complex formulae (E)	M983		
Formulae, equation, expression, identity?	M830, M813		
Substitution into formulae	M417, M327, M208		

Spring Term

Enter these SPARX codes into the Independent Learning area on SPARX to generate questions to help you revise and consolidate your learning.

	SPARX CODE		SPARX CODE
Shape 2 (3D Shapes)		Calculating 3 (Maths and Money)	
Names of 2D and 3D shapes and recognizing prisms	M276	Bills and bank statements	M901
Nets of cubes, cuboids and other 3D shapes	M518	Simple interest	U533
Plans and elevations	M228	Compound interest	U332
Area of 2D shapes (recap), including circles	M390, M610, M291, M705, M303, M231	VAT	M681
Circumference of a circle	M169	Wages and tax calculations	M68
Volume of cube and cuboids	M765	Exchange rates	U610
Volume of 3D shapes including prisms and cylinders	M697 M722	Solving problems involving direct proportion including best buys and recipes.	M681
Surface area of cubes and cuboids	M884		
Surface area of 3D shapes including triangular prisms	M534 M661		
Surface area of cylinder	M936	Geometry 5 (Rotations & Translations)	
Volume of cones, pyramids and spheres (E)	U426	Rotational symmetry	M523
Area of sectors and arc lengths (E)	M430, M280	Rotate a shape about a point on a shape	M910
FDP 6 (Using Percentages)		Rotate a shape about a point not on a shape	M910
FDP equivalence	M958 M264	Translations	M139
Percentage of an amount	M437 M905	Series of transformations	M881
Percentage increase and decrease (non-calculator)	M476	Describing transformations	M881
Percentage increase and decrease using multipliers	M533	Drawing, adding and subtracting vectors (E)	U632, U903
Repeated percentage change (E)	U332		
Compound Interest	U332		
Express change as a percentage	M235		
Reverse percentage change	M528		
Solve percentage problems			

Summer Term

Enter these SPARX codes into the Independent Learning area on SPARX to generate questions to help you revise and consolidate your learning.

	SPARX CODE		SPARX CODE
Shape 3 (Pythagoras' Theorem)		Geometry 6 (Enlargement & Similarity) continued	
Squares and square roots	M135	Negative scale factors	U134
Determine if a triangle is a right-angled triangle	M677	Finding missing side and angles in similar shapes	U518
Calculate the length of the hypotenuse		Solving problems with similar triangles	
Calculate the missing side lengths		Explore ratio in right angle triangles (trigonometry) (E)	U283 U545
Using Pythagoras' theorem on coordinate axes		Probability 3 (Probability)	
Use Pythagoras' theorem in 3D shapes (E)	M147	Single event probability	U683
Geometry 6 (Enlargement & Similarity)		Relative frequency	M332
Draw and measure different types of angles (recap)	M331 M780	Expected outcomes	M206
Construct and interpret scale drawings	M112	Independent events	M299
Congruent shapes	M124	Tree diagrams	
Recognise enlargement & similarity	M377 M324	Tree diagrams without replacement (E)	M572
Enlarging shapes by a positive integer scale factor	M178	Frequency trees	U280
Enlarging shapes by a positive integer scale factor from a point		Ratio 3 (Rates)	
		Speed, distance, time	M247 M221
Enlarging shapes by a fractional scale factor	U519	Density, mass & volume	U910