## Montgomery - \* Sparx Learning

Finding the perimeter of rectangles and simple shapes

Skill name

Finding the area of rectangles

Finding the area of triangles

Finding the area of compound shapes

Finding the perimeter of compound shapes

Year 9 Autumn Term

Sparx code

M390

M635

M269

M690

M610

Block 1 - Area of Trapezia & Circles

## nstructions- Log in to Sparx maths, select indepdent learning down the left side, select key tage 3 from the frop down menu, select the level that you want to try questions at - it will ell you what the levels mean. Enter the codes below. Practice your maths skills

levels mean. Enter the codes below. Practise your maths			
Year 9 Spring Term			
Block 6 - Pythagoras Theorem			
Skill name	Sparx code		
Calculating with roots and powers	M135		
Using Pythagoras' theorem in 2D	M677		

Search for topics:

Using Pythagoras' theorem in 2D	M677
Using Pythagoras' theorem in 3D (H)	M147
Block 7 - Numbers	
Skill name	Sparx code
Simplifying surds (H)	U338
Ordering negative numbers	M527
Adding and subtracting with negative numbers	M106
Multiplying and dividing with negative numbers	M288
Finding the lowest common multiple (LCM)	M227
Finding the highest common factor (HCF)	M698
Adding and subtracting fractions	M835
Multiplying with mixed numbers	M197
Dividing fractions	M110
Dividing with mixed numbers	M265
Using standard form with positive indices	M719
Using standard form with negative indices	M678
Block 8 - Using Percentages	
Skill name	Sparx code
Converting between fractions and decimals	M958
Converting between fractions, decimals and percentages	M264
Percentage change without a calculator	M476
Percentage change with a calculator	M533
Finding original values in percentage calculations	M528
Finding percentages of amounts without a calculator	M437
Finding percentages of amounts with a calculator	M905

Block 9 - Maths & Money

Block 10 - Line Symmetry & Reflection

Sparx code

U533

U332

U610

M901

M681

M523 M290

Sparx code

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Transibilion diffect transformations (H) Block 12 - Enlargement & Similarity Kill name Inderstanding similarity Inderstanding similarity Inderstanding similarity Block 13 - Solving Ratio & Proportion Prob Kill name Solving proportion problems (alue for money Constructing invest proportion equations Constructing invest proportion equations (H)	M139 M881 Sparx code M178 M377 M324 Sparx code Sparx code M478 M478
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Constructing direct proportion equations Constructing inverse proportion equations (H)	M472
Constructing inverse proportion equations (H)	
Constructing inverse proportion equations (H)	
	M665
	M448
/alue for money	M681
Currency conversion	U610
Block 14 - Rates	
Skill name	Sparx code
Calculating speed from distance-time graphs	M247
Plotting distance-time graphs using speeds	M221
Calculating with speed	U151
Calculating with rates	U256
Calculating with density	U910
Calculating with pressure	U527
Block 15 - Probability	
Skill name	Sparx code
Jsing probability phrases	M655
Vriting probabilities as fractions	M941
	M938
Probabilities of mutually exclusive events	M755
expected results from repeated experiments	M206
Sample space diagrams	M718
/enn diagrams	M829
Probabilities from Venn diagrams	M419
/enn diagrams with set notation	M834
	M299
	M572
Calculating experimental probabilities	M332
Block 16 - Constructions & Congruence	
	Sparx code
	M196
Constructing triangles	M565
	M232
Constructing bisectors of angles	
Constructing perpendicular bisectors and lines	M239
Constructing perpendicular bisectors and lines Constructing loci	M239 M253
Constructing perpendicular bisectors and lines	M239
	kill ame           calculating speed from distance-time graphs           calculating with speed           calculating with speed           calculating with rates           calculating with rates           calculating with rates           calculating with rates           calculating with ressure           Block 15 - Probability           kill name           sing probabilities as fractions           Writing probabilities of mutually exclusive events           speeded results from repeated expertments           ample space diagrams           frem diagrams with set notation           ree diagrams for independent events (H)           ree diagrams for dependent events (H)           ree diagrams for independent events (H)           ree diagrams to receive (H)           Block 16 - Constructions & Congruence           kill name           Block 16 - Compasses

Block 12 - Enlargement & Similarity		
Skill name	Sp	
Enlargement	M1	
Understanding similarity	M3	
Finding unknown sides in similar shapes	M3	
Block 13 - Solving Ratio & Proportion Pr		
Skill name	Sp	
Solving proportion problems	M4	
Value for money	Me	
Constructing direct proportion equations	M4	
Constructing inverse proportion equations (H)	М	
Graphs of direct and inverse proportion (H)	M4	
Value for money	Me	
Currency conversion	U6	
Block 14 - Rates		
Skill name	Sp	
Calculating speed from distance-time graphs	M2	
Plotting distance-time graphs using speeds	M2	
Calculating with speed	U1	
Calculating with rates	U2	
Calculating with density	U9	
Calculating with pressure	U5	
Block 15 - Probability	-	
Skill name	Sp	
Using probability phrases	Me	
Writing probabilities as fractions	MS	
Writing probabilities as fractions, decimals and percentage		
Probabilities of mutually exclusive events	M7	
Expected results from repeated experiments	M2	
Sample space diagrams	M7	
Venn diagrams	M	
Probabilities from Venn diagrams	M4	
Venn diagrams with set notation	M	
Tree diagrams for independent events (H)	M2	
Tree diagrams for dependent events (H)	MS	
Calculating experimental probabilities	Ma	
Disciple 0. Constructions 0. Community		
Block 16 - Constructions & Congruend	ř.	
Skill name	Sp	
Using a pair of compasses	M1	
Constructing triangles	MS	
Constructing bisectors of angles	M2 M2	
Constructing perpendicular bisectors and lines	-	
	M2	
Constructing loci		
Drawing and interpreting scale diagrams Congruent triangles	M1 U8	

Your ourriculum:

Key Stage 3

Year 9 Summer Term

Block 11 - Rotation & Translation

Default level:

Level 2

Skill name	
Block 4 - Testing Conjectures	
Changing the subjects of formulae	M184
Solving inequalities with the unknown on both sides	M732
Solving single inequalities	M118
Substituting into algebraic formulae	M208
Substituting into expressions with multiple operations	M327
Substituting into expressions with one operation	M417
Constructing and solving equations	M957
Solving equations with the unknown on both sides	M554
Mixed problems: solving equations with two or more steps	M509
Solving equations with the unknown in the denominator	M387
Solving linear equations involving brackets	M902
Solving equations of the form \$\frac{x+a}{b}=c\$	M401
Mixed problems: solving equations of the form \$ax+b=c\$ ar	nd M855
Solving equations of the form \$\frac{x}{a}+b=c\$	M647
Solving equations of the form \$ax+b=c\$	M634
Solving equations with one step	M707
Skill name	Sparx code
Block 3 - Forming & Solving Equations & Inec	walities
Equations of parallel and perpendicular lines (1)	0000
Equations of parallel and perpendicular lines (H)	U898
Finding equations of real-life straight line graphs (H)	M205
Interpreting real-life graphs	M771
Plotting real-life straight line graphs	M843
Interpreting equations of straight line graphs	M888
Finding equations of straight line graphs	M544
Plotting straight line graphs	M932
Plotting horizontal, vertical and diagonal lines	M797
Skill name	Sparx code
Block 2 - Straight Line Graphs	
Finding the area of sectors	M430
Finding the area of circles	M231
Identifying parts of circles	M595
Mixed problems: Finding the area of rectangles, triangles, p	-
Finding the area of trapeziums	M705
Finding the area of parallelograms	M291
Finding the area of compound shapes containing triangles	M996
Finding the area of triangles	M610

Block 4 - Testing Conjectures		
Skill name	Sparx code	
Finding factors and using divisibility tests	M823	
Finding the lowest common multiple (LCM)	M227	
Finding the highest common factor (HCF)	M698	
Finding prime numbers	M322	
Prime factor decomposition	M108	
Finding the HCF and LCM using prime factor decomposition	M365	
Expanding single brackets	M237	
Expanding single brackets and simplifying expressions	M792	
Expanding double brackets	M960	
Expanding triple brackets (H)	U606	
Block 5 - 3D Shapes		
Skill name	Sparx code	
Shape properties	M276	
Properties of 3D shapes	M767	
Nets of 3D shapes	U761	
Plans and elevations	U743	
Mixed problems: Finding the area of rectangles, triangles, par	M303	
Finding the surface area of cubes and cuboids	U929	
Finding the surface area of prisms	U259	
Finding the surface area of pyramids	U871	
Finding the surface area of cylinders	U464	
Finding the volume of cubes and cuboids	M765	
Finding the volume of prisms	M722	
Finding the volume of cylinders	M697	

U484 U116

U617

Finding the volume of cylinders Finding the volume of pyramids (H)

Finding the volume of cones (H) Finding the volume of spheres (H)

## YEAR 9 SPARX CODES BY TERM

Skill name

Simple interest calculations

Currency conversion

Value for money

Skill name

Symmetry

Reflection

Compound interest calculations

Financial terminology and calculations