

As you transition from primary to secondary school, it is very important to refresh your memory on some maths skills that you have learnt in the past (Building Blocks). We have also included some skills as extension tasks (Extension Skills) that involve more of the work you may be doing in your first years in secondary school.

Building Blocks				Building Blocks			
Strand	Topic	Skill	Skill #	Strand	Topic	Skill	Skill #
Number	Arithmetic with positive integers	Simple addition & its meaning	1	Number	Negative numbers	Compare negative numbers	37
		Simple subtraction & its meaning	2			Symmetry of subtraction	38
		Related addition & subtraction facts	3			Adding negative numbers	39
		Simple multiplication & its meaning	4			Subtracting negative numbers	40
		Simple division & its meaning	5			Adding & subtracting positive & negative numbers	41
		Related multiplication & division facts	6			Multiplying positive & negative numbers	42
		Commutative law	7			Dividing positive & negative numbers	43
		Associative law	8			Decimals	Read & write decimal numbers
		Addition facts	9		Compare decimal numbers		46
		Multiplication facts (times tables)	10		Addition & subtraction with decimals		47
		Division facts	11		Multiplication with decimals		48
		Distributive law of multiplication	12		Division with decimal answers		49
	Place value	Read & write positive integers	13		Worded problems involving decimals		51
		Compare positive integers	14		Convert simple decimals to fractions		52
		Multiply by powers of 10	15		Convert simple decimals to percentages		55
		Divide by powers of 10	16		Round decimal numbers	56	
		Round numbers to the nearest 10, 100, 1000	17		Fractions	What is a fraction?	57
	Operations with positive integers	Addition	18			Fractions as pictures	58
		Subtraction	19			Generate equivalent fractions	59
		Addition & subtraction (worded problems)	20			Compare fractions	60
		Long multiplication	21			Simplify fractions	61
		Short division	22			Express one number as a fraction of another	62
	Properties of positive integers	Multiplication & division (worded problems)	23			Improper fractions to mixed numbers	63
		Odd & even numbers	25			Mixed numbers to improper fractions	64
		Divisibility tests	26			Add or subtract fractions (same denominator)	65
		Factors of a number	27			Add or subtract fractions (different denominator)	66
		Prime numbers	28			Multiply whole number by fractions	67
		Prime factorisation 1	29			Multiplying fractions 1	68
		Highest common factor (listing)	31		Linking multiplying/dividing fractions & whole numbers	72	
		Multiple of a number	33		Fractions of an amount	77	
		Lowest common multiple (listing)	34		Increase/decrease by a fraction	78	
	LCM (worded problems)	36	Reverse fraction problems		79		
						Fractions (worded problems)	80

Strand	Topic	Skill	Skill #
Number	Percentages	Percentages as pictures	81
		Convert percentages to fractions	82
		Convert percentages to decimals	83
		Find percentages of amounts 1 (common % non-calc)	84
		Percentage increase or decrease (non-calc)	88
	Indices, powers & roots	Square numbers	99
	Number sense	Use of commutative & associative laws	140
		Subtraction by counting on	141
		Subtraction using negatives	142
		Lattice method for multiplication	143
		Short multiplication	144
		Long division	145
		Division using steps	146
		Mental maths help 1 (splitting numbers)	147
Mental maths help 2 (doubling & halving)		148	
Algebra	Linear equations	Solve equations using inverse operations	177
		Linear sequences from pictures	196
		Linear sequences (term-to-term rule)	197
	Quadratics	Cartesian axes & coordinates	199
Sums & products		221	
Geometry & measure	Naming, drawing, measuring & estimating angles	Types of angles	455
		Naming sides & angles	456
		Estimating angles	457
		Measuring angles (1)	458
		Measuring angles (2)	459
		Measuring angles (3)	460
		Drawing angles	461
	Angle facts	Angles on a straight line (1)	477
		Angles in a triangle (1)	485
		Angles in a triangle (2)	486

Strand	Topic	Skill	Skill #
Geometry & measure	Angles in polygons	Interior angles in quadrilaterals	560
		Interior angles in polygons (1)	561
		Interior angles in polygons (2)	562
		Exterior angles in polygons (1)	563
		Perimeter (1)	548
	Perimeter	Perimeter (2)	549
		Perimeter (3)	550
		Perimeter (4)	551
		Area	Counting squares
	Rectangles		554
	Compound shapes		555
	Parallelograms		556
	Triangles (1)		557
	Triangles (2)		558
	Volume	Counting cubes	567
		Cuboids (1)	568
Probability & sets	Single event probability	Express a probability in words	349
		Express a probability in numbers	350
Statistics	Collecting data	Data collection sheets (tally charts)	401
		Grouped frequency tables (discrete)	402
	Displaying data (1)	Bar charts & vertical line graphs	425
		Pictograms	426
		Time series charts (1)	450

**Extension Skills**

Strand	Topic	Skill	Skill #	Strand	Topic	Skill	Skill #	
<b>Number</b>	Op. with positive integers	Order of operations 1 (positive integers)	<b>24</b>	<b>Algebra</b>	Introduction to algebra	Writing algebraic expressions 1	<b>151</b>	
	Properties of positive integers	Prime factorisation 2	<b>30</b>			Writing algebraic expressions 2	<b>152</b>	
		Highest common factor (prime factorisation)	<b>32</b>			Writing algebraic expressions 3 (in context)	<b>153</b>	
		Lowest common multiple (prime factorisation)	<b>35</b>			Writing formulae & simple substitution	<b>155</b>	
		Negative numbers	Order of operations 2 (negative numbers)			<b>44</b>	Collecting like terms 1	<b>156</b>
	Decimals	Division of decimals	<b>50</b>		Manipulating expressions	Simplifying expressions involving multiplication	<b>158</b>	
		Convert recurring decimals to fractions 1	<b>53</b>			Expand a single bracket	<b>160</b>	
		Convert recurring decimals to fractions 2	<b>54</b>			Factorise simple expressions 1	<b>168</b>	
	Fractions	Multiplying fractions 2	<b>69</b>		Linear equations	Forming equations	<b>176</b>	
		Dividing fractions	<b>70</b>			Solve 1-step equations (balance method)	<b>178</b>	
		Reciprocal of fractions	<b>71</b>			Solve 2-step equations (involving multiplication)	<b>179</b>	
		Convert fractions to decimals 1	<b>73</b>			Solve 2-step equations (involving division)	<b>180</b>	
		Convert fractions to decimals 2	<b>74</b>			Solve 2-step equations (x negative)	<b>182</b>	
		Convert fractions to percentages 1	<b>75</b>			Solve 3-step equations	<b>183</b>	
		Convert fractions to percentages 2	<b>76</b>			Solve equations with x on both sides 1	<b>184</b>	
		Percentages	Find percentages of amounts 2 (using 10% non-calc)			<b>85</b>	Solve equations with x on both sides 2	<b>185</b>
	Find percentages of amounts 3 (using decimals non-calc)		<b>86</b>			Substituting & solving	<b>189</b>	
	Percentage/decimal multipliers		<b>89</b>			Linear sequences & graphs	Linear sequences (nth term)	<b>198</b>
	Percentage increase or decrease		<b>90</b>		Midpoint of a line segment		<b>200</b>	
	Repeated percentage increase or decrease 1		<b>91</b>		Drawing line graphs from coordinates		<b>205</b>	
	Repeated percentage increase or decrease 2		<b>92</b>		Straight line graphs 1		<b>206</b>	
	Simple interest		<b>93</b>		Other sequences	Important sequences	<b>261</b>	
	Reverse percentages		<b>96</b>			Fibonacci sequence	<b>263</b>	
	Percentage change		<b>97</b>			Inequalities	Representing inequalities on a number line	<b>265</b>
	Indices, powers & roots	Cube numbers	<b>100</b>		Writing inequalities from a number line		<b>266</b>	
		Square & cube roots	<b>101</b>		Integer solutions to inequalities		<b>267</b>	
		Order of operations 3 (indices & roots)	<b>120</b>		Formulae	Substitution into complex formulae	<b>278</b>	
	Number sense	Conversions between FDP (summary)	<b>149</b>			Change the subject of the formula 1 (1-step)	<b>280</b>	
			Order of operations 4 (combined)		<b>150</b>			

Strand	Topic	Skill	Skill #
Ratio, proportion & rates of change	Ratio	Compare quantities using ratios	328
		Simplify ratios	329
		Write ratios as fractions/proportions	330
		Share in a given ratio 1	332
		Share in a given ratio 2	333
		Share in a given ratio 3	334
		Harder problems involving ratios 1	335
		Harder problems involving ratios 2	336
		Harder problems involving ratios 3	337
		Solve ratio problems using algebra	338
	Proportion	Direct proportion 1	339
Geometry & measure	Angle facts	Angles on a straight line (2)	478
		Angles around a point	479
		Vertically opposite angles	480
		Alternate angles	481
		Co-interior angles	482
		Corresponding angles	483
		Proof - angles in triangles	484
		Angles in a triangle (3)	487
		Multi-step angle problems (1)	488
		Multi-step angle problems (2)	489
		Multi-step angle problems (3)	490
		Multi-step angle problems (4)	491
		Perimeter	Perimeter (5)
	Area	Trapezium	559
	Circle measure	Circumference of a circle (1)	534
	Volume	Cuboids (2)	569
	Surface area	Surface area of cuboids	584
	Circle theorems	Parts of the circle	592
	Similar shapes	Similar polygons (2)	609
		Similar polygons (3)	610
		Similar triangles (1)	611

Strand	Topic	Skill	Skill #
Probability & sets	Single event probability	Probability of single events (1)	351
		Probability of single events (2)	352
Statistics	Collecting data	Types of data (1)	392
		Types of data (2)	393
		Surveys & questionnaires (1)	399
		Grouped frequency tables (continuous)	403
	Averages & ranges	Mean (1)	405
		Mean (2)	406
		Mean (3)	407
		Mean from frequency tables (1)	417
	Displaying data (1)	Pie charts (1)	427
		Pie charts (2)	428
		Pie charts (3)	429
	Displaying data (2)	Cumulative frequency diagrams (1)	437
		Scatter diagrams (1)	453