

Unit A

YR 9: CORE: ASSESSING MY PROGRESS

Test Date =

1st column = RAG 2nd column = codes for GCSE section on www.vle.mathswatch.co.uk/vle

I understand place value in integers and decimals		1	I can substitute into formulae (including ones for Science)	95
I can understand and use = \neq < \leq > \geq ,expressions, identity, equations, formulae, inequalities, terms and factors		BOP	I can simplify algebra (adding and subtracting)	33
			I can simplify algebra (multiplying and dividing)	34,35
I can order positive and negative integers		2	I can simplify algebra (powers)	131
I can order decimals		3	I can expand a single bracket and double brackets	93,134
I can change between fractions, decimals and percentages	84,85		I can factorise into a single bracket	94
I use equivalent fractions to compare/order fractions	25,70		I can factorise quadratics into double brackets	157
I can simplify fractions	26		I can factorise using the difference of two squares	158
I can write improper fractions as mixed numbers & decimals	BOP		I can use algebra to prove two expressions are the same	Mixed
I can add & subtract integers/decimals (and show working)	17,18		I know facts about angles at a point, on a straight line	45
I can multiply integers/decimals (and show working)	19,66		I know vertically opposite, corresponding & alternate angles	120
I can divide numbers/decimals (and show working)	20,67		I know angles in a triangle sum to _____° and the proof	121
I can add and subtract fractions, including mixed numbers	71		I can form equations to solve angle problems	137
I can multiply decimals, including mixed numbers	73		I can work out interior & exterior angles in regular polygons	123
I can write the reciprocal of integers and fractions	76		I recognise line symmetry & order of rotational symmetry	11
I can divide fractions, including mixed numbers	74		I know the names & properties of all 4 types of triangles	9
I can do percentages of amounts with & without calculator	86,87		I know the names & properties of all 6 quadrilaterals	9
I can calculate VAT & use percentages in money problems			I can tessellate shapes	12
I can increase and decrease an amount by a percentage	108		I draw & interpret: pictograms, bar charts, vertical line graphs	15,16,64
I can write one quantity as a percentage of another	88,89		I can draw and interpret time series & use trend lines	153
I can calculate percentage change	109		I can draw and interpret pie charts	128
I understand what simple interest is & can calculate it	111		I draw/interpret scatter graphs, correlation, lines of best fit	129
I can solve reverse percentage problems	110		I can draw and understand frequency polygons and histograms for continuous data with equal intervals	65
I can use BIDMAS to answer number sums	75			

Unit B

YR 9: CORE: ASSESSING MY PROGRESS

Italics = Revision Topics

UNIT B TEST:

Tick the 1st column when you've written your Book of Power notes. The codes are on **GCSE section** on www.vle.mathswatch.co.uk/vle.

Colour the 2nd column green if you can do it in class, orange if you can do some, red if you feel you cannot understand any.

I can work out multiples, common multiples and LCM	28,80	I can calculate the perimeter of shapes	52
I can work out factors, common factors and HCF	28,79	I can name all the parts of a circle	116
I can square and cube numbers		I can calculate the area of triangles and quadrilaterals	53-56
I can $\sqrt{\quad}$ and $\sqrt[3]{\quad}$	81	I can calculate circumference of circles & length of arc	118
I can estimate $\sqrt{50}$, for example	81	I can calculate the area of circles & areas of sectors	117, 167
I understand power notation	82	I can work out the area of compound shapes	53
I can recognise powers of 2, 3, 4 and 5	82	I can work out the volume and surface area of cuboids	114
I can use my calculator for powers and roots	BOP	I can do the volume & surface area of triangular prisms	115
I can work out prime numbers less than 100	28	I can work out the volume & surface area of a cylinder	119
I can write a number as a product of its prime factors	78	I can work out the volume and surface area of a sphere	169
I can use Venn Diagrams for LCM and HCF	BOP	I can work out the volume and surface area of a pyramid	170
I know the rules of indices	131	I can work out the volume and surface area of a cone	171
I understand negative and zero powers	154	I can work out the volume and surface area of a frustum	172
I can simplify ratios and express in form 1:n	38	I can leave answers in terms of π	BOP
I can share things using ratios	106	<i>I can calculate the mean, mode, median & range</i>	62
I can use ratios in recipes	39	I can calculate mean from a frequency table	130
I can solve problems involving fractions and ratios	107	I can solve problems using averages and range	BOP
I know the gradient of a graph = the rate of change	107	I can do a random sample	152
I understand the link between unit ratio and gradient	107	I can answer stratified sampling questions	176
I can change between metric units, including hectares	112	I know when the results of a sample are reliable	152
I can do speed, distance, time calculations	142	I can use and interpret conversion graphs	107

Unit C

YEAR 9: CORE: ASSESSING MY PROGRESS

Italics = Revision Topics

UNIT C TEST:

Tick the 1st column when you've written your Book of Power notes

The codes in the 2nd column match the topic clip on www.vle.mathswatch.co.uk/vle. GCSE section. Watch these to help you.

Colour the 2nd column green if you can do it in class, orange if you can do some, red if you feel you cannot understand any.

I can multiply a whole number by a fraction	73	I can work out the n^{th} term of a linear sequence	102
I can divide a whole number by a fraction (or vice versa)	74	I can continue a quadratic sequences	BOP
I can calculate a fractions of amounts	72	I can use scales on maps and diagrams	38
I can express one number as a fraction of another	BOP	I can identify congruent shapes	12
I can express one number as a percentage of another	89	I can use the SSS, SAS, ASA, RHS rules to recognise congruent triangles	166
I can calculate percentages of amounts without a calculator	87	I can use similarity to calculate missing side lengths	144
I can calculate percentages of amounts with a calculator	86	I can reflect a shape and describe reflections	48
I can decimal multipliers for fractions or percentages of amounts	BOP	I can rotate a shape and describe rotations	49
I use decimal multipliers to increase/decrease amounts by a percentage	BOP	I can translate a shape and describe translations using vectors I can rotate a shape and describe rotations	50
I can use decimal multipliers to add VAT and simple interest	BOP	I can enlarge a shape and describe an enlargement	148
I can convert between metric units of measurement	112	I can record the outcome of experiments (tally tables)	15
I use fractions, percentages & metric conversions to solve problems	BOP	I can calculate relative frequency	125
I can solve proportion problems	42	I can calculate the probability of an event happening	59
I recognise Triangular numbers, Square numbers and Fibonacci Sequences	104 141	I can list all the outcomes of an event.	58
I can recognise and continue arithmetic progressions	104	I can draw and complete possibility spaces to find all the outcomes from two events	126
I can recognise and continue geometric progressions	163	I understand the words mutually exclusive	60
I can generate numbers in a sequence using the n^{th} term	102	I understand what independent events means	BOP

Unit D

YEAR 9: Core Topics: ASSESSING MY PROGRESS

Italics = Revision Topics

UNIT D TEST:

1st = colours, 2nd = BOP notes done, 3rd = GCSE section for www.vle.mathswatch.co.uk/vle.

<i>I can round numbers to the nearest integer, 10, 100 or 1000</i>		31	I can change the subject of a formula		107
I can round numbers to 1, 2 or 3 decimal places		32	I can name different types of triangles		9
I can round numbers to 1, 2 or 3 significant figures		90	(scalene, isosceles, equilateral right-angled)		
I can use rounding to estimate answers to calculations		91	I can name the different types of quadrilaterals		9
I can estimate lengths, areas and costs		91	(square, rectangle, parallelogram, rhombus, kite, trapezium)		
I can write large numbers in standard form		83	I know the properties of scalene triangles		9
I can write small numbers in standard form		83	I know the properties of isosceles triangles		9
I can convert numbers in standard form to ordinary numbers		83	I know the properties of equilateral triangles		9
I can multiply and divide numbers in standard form		83	I know the properties of squares & rectangles		9
I can add and subtract numbers in standard form		83	I know the properties of parallelograms and a rhombus		9
I understand the meaning of "inverse operation"		21	I know the properties of kites & trapeziums		9
I can understand function (number) machines		36	I can find and use three-figure bearings		124
I can substitute into formulae		95	I can use angles at parallel lines to work out bearings		120
<i>I can solve simple equations</i>		100	<i>Revision of scale diagram skills from Unit C</i>		38
e.g. $x + 5 = 7$ $4m = 10$ $\frac{1}{2}X + 4 = 10$ $18 = 4k + 6$		135	I can solve problems involving bearings and scale diagrams		124
I can solve equations with unknowns on both sides		100	I can draw plans and elevations of 3D shapes		51
e.g. $75 + 2t = 100 - 2t$		135	I can put results from an experiment into a tally and frequency table		15
<i>I can expand single brackets</i>		93			65
I can solve equations which contain brackets	100 & 135		I can estimate probabilities from an experiment and know this can be different if I repeat the experiment		125
I can use inequality signs between numbers		138	I know that more trials = more reliable estimates		125
I can work out integers that satisfy an inequality		138	I can calculate relative frequency		125
I can show inequalities on a number line		138	I can predict using experimental data (expected frequency)		125
I can solve inequalities e.g. Solve $2x - 3 \leq 10$		139	I can compare data sets by calculating averages and measures of spread using the statistical diagrams from unit A		Mixed
I can solve two-sided inequalities e.g. $3m + 1 > m - 4$		139			
I can use inequalities to write percentage error intervals		155			

Unit E

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UNIT E TEST:

1st = colours, 2nd = Tick when BOP notes done, 3rd = GCSE Section on www.vle.mathswatch.co.uk/vle

I understand place value in integers & decimals		1	I work out gradient & intercepts from graphs		97
I can order positive and negative numbers		2	I work out gradient & intercepts from equations		159
I can use $< > \leq \geq = \neq$ when comparing numbers		5	I find linear equations given gradient and point		159
I can + and - positive and negative numbers		68	I find linear equations given two points		159
I can x and \div positive and negative numbers		68	I can sketch a graph given m and c		159
I can use BIDMAS with directed numbers		75	I can read approx. solutions from graphs		140
I can round to 1 significant figure		90	I can name 3D shapes		43
I can estimate the answer to a sum		91	I describe solids using the correct vocabulary; faces, edges, surface and vertices		43
I can use estimation to check answers to sums		91			
I can x and \div integers and decimals by 10,100,1000..		30	I can sketch the net of a cuboid		44
I use one calculation to find the answer to another		92	I can sketch planes of symmetry on 3D shapes		43
I can write 1 million and 1 billion in figures		BOP	I've memorised & use formulae for area of rectangles, triangles, parallelograms, trapezia		53- 56
I write 0.5 million, 0.25 million, 0.1 million in figures		BOP			
I can write large numbers in standard form & back		83	I can decide whether a 3D solid is a prism		119
I can write small numbers in standard form & back		83	I can work out the surface area of cubes / cuboids		114
I can use the power button on a calculator		BOP	I can calculate the surface area of other prisms		114
I can x and \div numbers in standard form		83	Cylinder; sketch net, calculate surface area		114
I can + and - numbers in standard form		83	I can count the volume of a shape in cubes.		BOP
I can plot and read co-ordinates in all 4 quadrants		8	I've memorised & use volume cuboid formula		115
I can solve mid-point problems		133	I can calculate the volume of a triangular prism.		119
I can use linear equations to fill in an x-y table, then plot the points and join with a ruler		96	I've memorised & can do volume of a prism		119
			I've memorised & can do volume of cylinder		119
I recognise which equations will be parallel lines		97	I understand use of random sampling in real-life		152
I can recognise, name and plot straight lines parallel to the axis e.g. $x = 3$ and $y = -2$		BOP	I understand the need for sampling		152
			I understand how to avoid bias		152
I can recognise & name the graphs $y=x$ and $y= -x$		BOP	I can use stratified sampling		176
I can use trigonometry to find unknown sides		168	I can use trigonometry to find unknown angles		168

