Na	me:			Class:		Year:					Ч	8
Sta	rt score:	Target Score:		End Sco	re:		Aut 1	Aut 2	Spr 1	Spri 2	Sum	Sum
	1. Read, write, order	r & compare numbers to a	it least 1 000 000 a	ine the v	alue of each		_	•,	•,	•,		
0	digit.		6 · • • •									
/alue	2. Count forwards of Round any number (	r backwards in steps of po up to 1 000 000 to the new	wers of 10 for any rest 10, 100, 1000	, given num ). 10 000 an	ber up to d 100 00	5 1 000 000. )0						
ace /	3. Interpret negative	e numbers in context, cou	nt forwards and ba	ackwards w	ith positi	ive and negative						
Ъ	whole numbers, incl	luding through zero.	Class:       Year:       The State       The State <thte state<="" th=""> <th< td=""><td></td><td></td></th<></thte>									
	4. Reau Roman num		Class:       Year:       The set of the			1						
q	5. Add and subtract	whole numbers with mor	e than 4 digits, incl	luding using	g formal	written methods						
d Su	6. Add and subtract	and subtraction). numbers mentally with ir	creasingly large nu	umbers. Us	e roundi	ng to check						
d an	answers to calculation	ons and levels of accuracy				0						
Ad	7. Solve addition and	d subtraction multi-step p	roblems in context	ts, deciding	which o	perations and						1
	8. Identify multiples	and factors, including fin	ling all factor pairs	s of a numb	er, and c	ommon factors						
	of two numbers.											
٥i	9. Know and use the numbers. Establish	e vocabulary of prime num whether a number up to	bers, prime factor	s and comp	osite (no numbers	on-prime) s up to 19.						1
Ipue	10. Multiply number	rs up to 4 digits by a 1- or	2-digit number usi	ng a formal	written	method. Divide						
lult a	numbers up to 4 dig	its by a 1-digit number us	ng the formal writ	ten method	d of shor	t division.						
Σ	11. Multiply and div	ide whole numbers and tr	11000.						1			
	12. Recognise and u	se square numbers and cu	ared and cubed.									
	13. Compare and or	der fractions whose deno	minators are all mu	ultiples of tl	ne same	number. Add						
	and subtract fraction	ns with the same denomin	er.									
	14. Identify, name a tenths and hundred	nd write equivalent fracti ths	sually, including						1			
	15. Recognise mixed	d numbers and improper f	pers and improper fractions and convert from one form to the othe nents > 1 as a mixed number.									
suc	write mathematical	statements > 1 as a mixed	number.	hors suppo	matorials and							
actic	diagrams.	fractions and mixed num	ers by whole hum	bers, suppo	orted by	materials and						1
Ë	17. Round decimals	with two decimal places t	o the nearest who	le number a	and to or	ne decimal place.						
	Read and write deci	mal numbers as fractions er and compare numbers	(e.g. 0.72 = '²/ <sub>100</sub> ). with up to three d	ecimal place	es Solve	e problems						
	involving number up	to three decimal places.		central place		problems						
	19. Write percentag	es as a fraction. Solve pro	blems which requi	ire knowing	percent	tage and decimal						1
	20. Convert between	n different units of metric	measure (e.g. km	& m; cm &	m; cm &	. mm; g & kg; l &						
	ml). Use approx. equ	uivalences between metri	and imperial unit	s (e.g. inche	es, poun	ds & pints).						
URE	21. Measure & calcu of squares/rectangle	late the perimeter of con es using standard units, so	iposite rectilinear : uare cm/m and es	shapes in ci timate the	m/m. Ca area of i	liculate the area						1
IEAS	22. Estimate volume	e (e.g. using 1 cm blocks to	build cubes/cubo	ids) and cap	pacity (e.	.g. using water).						
2	23 Solve probs invo	lying converting between	units of time Use	all four on	orations	to solve probs						
	involving measure (e	e.g. length, mass, volume,	money) using deci	imal notatio	on includ	ling scaling.						1
	24. Identify 3D shapes, including cubes and other cuboids, from 2D representations.											
	25. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex ang											
твү	Draw given angles, and measure them in degrees. 26. Identify: angles at a point and one whole turn (total 360°): angles at a point on a straight lin											
OME	26. Identify: angles a % a turn (total 180°)	at a point and one whole t ): other multiples of 90°.	urn (total 360°); a	ngles at a p	oint on a	a straight line and						1
GEC	27. Use the properti	ies of rectangles to deduc	e related facts and	find missin	g length:	s and angles.						
	28. Identify, describe	e and represent the positi	on of a shape follo	wing a refle	ection or	translation						
	using the appropriate language, and know that the shape has not changed.											
TS	29. Solve compariso	n, sum and difference pro	blems using inforn	nation pres	ented in	a line graph.						
STA'	30. Complete, read a	and interpret information	in tables, including	g timetable:	s.							
1-	8: Gr 1 emerging	9-16: Gr 1 developing	17-24: Gr 1 s	securing	25-3	30: Gr 1 ready						

Nar	me:		Clas	ss:	Year:	1	2	1	2	1	2
Stai	rt score:	Target Score:	End	l Score:		Aut	Aut	Spr :	Spri	Sum	Sum
	1. Read, write, order Round any whole nu	r and compare numbers up umber to a required degree	to 10 000 000 and dete of accuracy.	alue of each digit.							
ď	2. Use negative num problems that involv	bers in context, and calcula ve all of the above.	te intervals across zero	o. Solve num	ber and practical						
t, Div	3. Multiply and divid methods and interp	de numbers up to 4 digits by ret remainders as whole nu	n a 2-digit whole number mean and arises a sumble set of the set o	er using the f tions, or by ro	ormal written ounding.						
o, Mul	4. Identity common	has of the order of operatio		ions involvin	a the four						
dd, Sub	operations.	d subtraction multi-sten pro	blems in contexts dec	iding which c	pherations and						
Ā	methods to use and	why.	common multiples to	evoress frac	tions in the same						
	denomination.	n. abtract fractions with different denominators and mixed numbers, using the conce actions. mple proper fractions and simplify the answer (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ ). Divide proper frac									
	equivalent fractions		proper fractions								
ctions	by whole numbers (	e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$ .	f each digit to three decimal places and multiply and divide numbers by e answers are up to three decimal places. numbers with up to two decimal places by whole numbers. Use written as where the answer has up to two decimal places								
Fra	10. Identify the valu	e the answers are up to three	e decimal places.	numbers by 10,							
	division methods in	cases where the answer has	the answer has up to two decimal places by whole humbers. Use whiten the answer has up to two decimal places. etween simple fractions, decimals and percentages, including calculation of percentages (e.g. of measures) such as 15% of 3								
	12. Recall and use end different contexts.	quivalences between simple	e fractions, decimals ar	nd percentage	es, including in						
8 P	13. Solve problems i and the use of perce	involving the calculation of pentages for comparison.	lving the calculation of percentages (e.g. of measures) such as 15% of 30 ges for comparison. Iving similar shapes where the scale factor is known or can be found. So qual sharing and grouping using knowledge of fractions and multiples. Iber problems algebraically. Use simple formulae expressed in words.								
8	14. Solve problems i problems involving	involving similar shapes whe unequal sharing and groupi	ere the scale factor is k ng using knowledge of	be found. Solve multiples.							
RA	15. Express missing	number problems algebraic	ally. Use simple formu	lae expressed	l in words.						
ALGEBI	16. Generate and de	escribe linear number seque	nces.								
4	17. Find pairs of nur possibilities of comb	nbers that satisfy number so pinations of two variables.	entences involving two	o unknowns.	Enumerate all						
	18. Solve problems in notation up to three	e decimal places where appr	opriate. Convert betw	r measure, us veen miles an	decimal d km.						
IRE	19. Use, read, write & time from smaller	& convert between standar to larger units, and vice ver	d units of measure, co rsa, using decimal nota	nverting leng	th, mass, volume 3 dec places.						
NEASL	20. Recognise that s	hapes with the same areas	can have different peri	meters and v	ice versa.						
~	for area and volume	ea of parallelograms and tria	angles. Recognise whe		e to use formulae						
	centimetre cubed (c	ate and compare volume of m <sup>2</sup> ) and cubic metres (m <sup>3</sup> ),	and extending to other	ng standard i r units.	inits, including						
	23. Draw 2-D shapes shapes, including ma	s using given dimensions an aking nets.	d angles. Recognise, d	escribe and b	build simple 3-D						
ИЕТВУ	<ul> <li>24. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.</li> </ul>										
GEON	25. Illustrate and name parts of circles, including radius, diameter and circumference and know the diameter is twice the radius.										
	26. Recognise angles and find missing ang	s where they meet at a poir gles.	it, are on a straight line	e, or are verti	cally opposite,						
۵D	27. Describe position	ns on the full coordinate gri	d (all four quadrants).								
P	<ul> <li>28. Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</li> <li>29. Interpret and construct nio sharts and line graphs and use these to solve problems.</li> </ul>										
ATS	29. Interpret and construct pie charts and line graphs and use these to solve problems.				ems.						
ST	30. Calculate and int	terpret the mean as an aver	age.								
1-3	-8: Gr 2 emerging 9-16: Gr 2 developing 17-24: Gr 2 securing 25-30: Gr 3 rea										

Start score:       Target Score:       End Score:       Target Score:       End Score:       Target Score:	Nam	e:		Class:	Year:			1	2	H	7
Under positive & negative indegrive indegrive, declinable & fractions.         Image: Second Se	Start	score:	Target Score:	End Score:		Aut 1	Aut 2	Spr	Spr 3	Sum	Sum
2. Define percentage as 'number of parts out of 100'; Compare two quantities using percentages [2]		1. Order positive & negative Use the number line as a m	e positive and negative integers, deci odel for ordering real numbers. Use	mals & fractions. the symbols $= \neq <$	>≤≥	(2)					
3. Use the concepts and vocabulary of Highest Common Factor & Lowest Common Multiple     3     4. Use integrepowers & associated real roots (square & cube; recognise powers of 2 and 3 and     distinguise powers & associated real roots (square & cube; recognise powers of 2 and 3 and     distinguise powers & associated real roots (square & cube; recognise powers of 2 and 3 and     distinguise powers & associated real roots (square & cube; recognise powers of 2 and 3 and     distinguise between exact representations of roots and their decimal approximations.     (3)     5. Use the four operations applied to integers, positive & negative     (2)     4. Use integrent aglebraic trepresentations of roots and their decimal approximations.     (4)     7. Use conventional notation for the priority of operations including brackets, powers, roots and     reciprocals     8. Round numbers and measures to an appropriate degree of accuracy such as decimal places     (3)     (4)     (5) timerrent aglebraic notation: ablach), 30( yyyyr(3), av), av), ava), ava, ava, ava, ava, by (avb), avace, ava, ava, by (avb), Taxekets.     Model situations or procedures by translating them into algebraic expressions, for scientific formulae     (4)     (1). Simplify & manipulate algebraic expressions of tormulae & expressions, inc scientific formulae     Where appropriate interpret expressions as functions with inputs and outputs.     (4)     (1). Use algebraic method to solve linear ructions (cynarille to the avery, yvand yr 4)     (3)     (1). Use algebraic method to solve linear ructions (cynarille to the avery, yvand yr 4)     (4)     (2). Exercise scientary, and avait and avait and avait avery (avait avery of avait avery or avait avery (avait avery)     (3)     (2). Use adjustive trop operties of trangles, quadritaterals, and other plane figures inc regular     provide avaitable of them there trans of a sequence from a term to them there fraction is, < or >1     (3)     (4)     (2). Describe sketch & avaiting area of another where fr		2. Define percentage as 'nu	mber of parts out of 100'; Compare t	two quantities using	g percentages	(2)					
Big         4. Use integer powers & associated real roots (square & cube; recognise powers of 2 and 3 and distributions)         (a)           distinguish between exact representations of roots and their decimal approximations.         (a)           5. Use the four operations, including formal methods applied to proper & improper fractions         (d)           7. Use conventional notation for the priority of operations including brackets, powers, roots and reciprocals         (a)           8. Round numbers and measures to an appropriate degree of accuracy such as decimal places         (3)           9. Use/ interpret algebraic notation: ablaxb), 3y (yr:yr/3y), a <sup>2</sup> axab, a <sup>2</sup> (axaa), a/0 (a+b), brackets.         (b)           Model situations or procedures by translaint them in the algebraic expressions for formulae         (a)           10. Simplify & manipulate algebraic expressions to maintain equivalence by collecting like terms and multiphying a single term over a bracket including proofs         (a)           11. Understand & use the concept & vocabulary of expressions, equation, term         (a)           12. Recognise, ketch & produce graphs of linear functions (parallel to the axes, y=x and y = -x)         (a)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step in brackets         (d)           14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric.         (a)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step in brackets </td <td></td> <td>3. Use the concepts and voc</td> <td>cabulary of Highest Common Factor</td> <td>&amp; Lowest Common</td> <td>Multiple</td> <td>(3)</td> <td></td> <td></td> <td></td> <td></td> <td></td>		3. Use the concepts and voc	cabulary of Highest Common Factor	& Lowest Common	Multiple	(3)					
Bitsinguish between exact representations of roots and their decimal approximations.         (3)           5. Use the four operations applied to integers, positive & Regative         (2)           6. Use the four operations, including formal methods applied to proper & improper fractions         (4)           7. Use conventional notation for the priority of operations including brackets, powers, roots and reciprocals         (2)           8. Round numbers and measures to an appropriate degree of accuracy such as decimal places         (3)           9. Use/ interpret algebraic notation: abfaxb), 3y( y+y+y/ 3xy), a <sup>2</sup> axa), a <sup>1</sup> (axaxa), a/b (a+b), brackets.         (4)           10. Simplify & manipulate algebraic expressions to maintine equivalence by collecting like terms and multiphying a single term over a bracket including proof.         (3)           11. Understand & use the concert & vocabulary of expressions, equation, term         (3)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets         (4)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets         (4)           14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric         (3)           15. Use ratio notation, including reduction to simplest form         (2)           16. Divide a given quantity host yon stris a given part : part or part : whole ratio. Express division in rotational, reglection and enlargement (whole any mether scale factor)	ER	4. Use integer powers & ass	sociated real roots (square & cube; re	ecognise powers of a	2 and 3 and						
B         5. Use the four operations applied to imagers ) positive & negative         (2)           6. Use the four operations, including formal methods applied to proper & improper fractions         (4)           7. Use conventional notation for the priority of operations including brackets, powers, roots and reciprocals         (2)           8. Round numbers and measures to an appropriate degree of accuracy such as decimal places         (3)           9. Use/interpret algebraic notation: abdxb) 3y (v+y+y' 3w), a <sup>3</sup> (vaxa), a <sup>3</sup>	IMB	distinguish between exact r	epresentations of roots and their de	cimal approximation	ns.	(3)					
Understand         Understand         Understand         Use instruction	z	5. Use the four operations a	including formal matheds applied to	nropor & impropor	fractions	(2)					
Yuge       7. Use conventional notation for the priority of operations including brackets, powers, roots and reciprocals       (2)         8. Round numbers and measures to an appropriate degree of accuracy such as decimal places       (3)       (4)         9. Use/interpret algebraic notation: ab(axb), 3y(y+y+y(3xy), a* axa), a* (axaxa), a/b (a+b), brackets.       (4)         10. Simplify & mainplate algebraic expressions to maintain equivalence by collecting like terms and multiplying a single term over a bracket including proofs       (3)         11. Understand & use the concept & vocabulary of expressions, equation, term       (3)         32. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets       (4)         13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets       (4)         14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric       (3)         15. Use ratio notation, including reduction to simplest form       (2)         16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division (1)       (4)         17. Understand & use proportion a sequality of ratios       (3)         18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons.       (2)         19. Underlify, describe & construct similar & congruent shapes by considering translation rotation, reflection and enlargement (whole number scale factor)		(Multiply and divide)		proper & improper	Indections	(4)					
8. Round numbers and measures to an appropriate degree of accuracy such as decimal places (3) <ul> <li>9. Use/ interpret algebraic notation: ab(axb), 3y( y+y/ 3w), a<sup>2</sup> axa), a<sup>2</sup> (axaxa), a<sup>1</sup>(axaxa), b<sup>1</sup>(axaxa), b<sup>1</sup>(axaxa), a<sup>1</sup>(axaxa), a<sup>1</sup>(b<sup>1</sup>(axaxa), a<sup>1</sup>(axaxa), a<sup>1</sup>(axaxa, a<sup>1</sup>(axaxa, a<sup>1</sup>(axaxa), a<sup>1</sup>(axaxa), a<sup>1</sup>(axaxa), a</li></ul>		7. Use conventional notation reciprocals	on for the priority of operations inclu	ding brackets, powe	ers, roots and	(2)					
9. Use/ interpret algebraic notation: ab(axb), 3y( y+y+y/ 3xy), a <sup>2</sup> axa), a <sup>3</sup> ( axaxa), a/b (a+b), brackets.           Model situations or procedures by translating them into algebraic expressions or formulae (A)           10. Simplify & manipulate algebraic expressions to maintain equivalence by collecting like terms and multiplying a single term over a bracket including proofs         (3)           11. Understand & use the concept & vocabulary of expressions, equation, term (3)         (3)           Substitute numerical values positive & negative into formulae & expressions, inc scientific formulae         (4)           12. Recognise, sketch & produce graphs of linear functions (parallel to the axes, y=x and y = -x)         (3)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets         (4)           14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, generic         (3)           16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division in to vo parts as a ratio.         (4)           17. Express one quantity af fraction/percentage of another where fraction is, < or >1         (3)           18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons.         (2)           19. Johentify, describe & construct similar & congruent shapes by considering translation rotation, reglection and enlargement (whole number scale factor)         (4)           10. Derive and illustrate properties for triangles		8. Round numbers and mea	sures to an appropriate degree of ac	curacy such as deci	mal places	(3)					
Model situations or procedures by translating them into algebraic expressions or formulae         (4)           10. Simplify & mainpulate algebraic expressions to maintain equivalence by collecting like terms and multiplying a single term over a bracket including proofs         (3)           11. Understand & use the concept & vocabulary of expressions, equation, term         (3)           Substitute numerical values positive & negative into formulae & expressions, in cscientific formulae           Where appropriate interpret expressions as functions (parallel to the axes, y=x and y = -x)         (3)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step in bracketst (4)         (4)           14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric         (3)           16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division         (4)           17. Express one quantity as fraction/percentage of another where fraction is, < or>         (2)         (4)           18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons.         (4)           20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, regular polygons, & other polygons that are reflectively and rotationally symmetric. Use standard conventions for labelling the sides & angles of triangle ABC (2)           21. Construct and interpret plans & elevations of 3D shapes         (2)		9. Use/ interpret algebraic r	notation: ab(axb), 3y( y+y+y/ 3xy), a <sup>2</sup>	axa), a³( axaxa), a/b	o (a÷b), bracke	ts.					
10. Simpling variant agebraic expensions to maintain equivalence by Collecting line terms and maintain equivalence by Collecting lines the submaintain equivalence by Collecting lines the terms and maintain equivalence by Collecting lines the submaintain equivalence by Collecting lines terms and maintain equivalence by Collecting lines the submaintain equivalence by Collecting lines terms and maintain equivalence by Collecting lines and enteres expresemations in oneversible fragmation. The enters and the s		Model situations or procedu	ures by translating them into algebra	ic expressions or fo	rmulae	(4)					
11. Understand & use the concept & vocabulary of expressions, equation, term       (3)         Substitute numerical values positive & negative into formulae & expressions, in scientific formulae       (4)         12. Recognise, sketch & produce graphs of linear functions with inputs and outputs.       (4)         13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets (4)       (4)         14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric       (3)         15. Use ratio notation, including reduction to simplest form       (2)         16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division       (4)         17. Express one quantity as fraction/percentage of another where fraction is, < or >1       (3)         18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons.       (4)         20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, , regular polygons, & other polygon shat are reflectively and rotationally symmetric. Use standard conventions of a bables       (3)         21. Construct and interpret partages desvertices) of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres       (2)         22. Derive and apply formulae to calculate and solve problems involving volume and surface area of cuboids (including cubes)       (2)         22. Lorive and apply formulae to calculate and solve prob		multiplying a single term ov	rer a bracket including proofs	invalence by collection	ng like terms a	na (3)					
Bubstitute numerical values positive & negative into formulae & expressions, in c scientific formulae where appropriate interpret expressions as functions (parallel to the axes, y=x and y = -x)         (4)           12. Recognise, sketch & produce graphs of linear functions (parallel to the axes, y=x and y = -x)         (3)         (4)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets         (4)         (4)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets         (4)         (4)           14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric         (3)         (4)           15. Use ratio notation, including reduction to simplest form         (2)         (4)         (4)           15. Use ratio notation, including reduction to simplest form         (2)         (4)         (4)           16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division         (2)         (2)           17. Express one quantity as fraction/percentage of another where fraction is, < or >1         (3)         (4)           18. Derive and enlargement (whole number scale factor)         (4)         (4)         (4)           20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, , regular polygons, & other polygons that are reflectively and rotationally symmetric. Use standard conventions for	٩	11. Understand & use the c	oncept & vocabulary of expressions,	equation, term		(3)					
Where appropriate interpret expressions as functions with inputs and outputs.         (4)           12. Recognise, sketch & produce graphs of linear functions (parallel to the axes, y=x and y = -x)         (3)           13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets (4)         (4)           14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric         (3)           15. Use ratio notation, including reduction to simplest form         (2)           16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division into two parts as a ratio.         (4)           17. Storess one quantity as fraction/percentage of another where fraction is, < < or >1         (3)           18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons.         (2)           19. Identify, describe & construct similar & congruent shapes by considering translation rotation, reflection and enlargement (whole number scale factor)         (4)           20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, regular polygons, & other polygons that are reflectively and contationally symmetric. Use standard conventions for labelling the sides & angles of triangle ABC (2)           21. Construct and interpret plans & elevations of 3D shapes         (3)         (2)         (2)         (2)         (2)         (2)         (2)         (2)         (2)	GEBI	Substitute numerical values	positive & negative into formulae &	k expressions, inc sc	ientific formul	ae					
12. Recognings, sector & produce graphs of inteam durctions (parameter to the axes, yeak and y = x)       (a)         13. Use algebraic method to solve linear equations in one variable : 1 step & 2-step inc brackets (4)       (a)         14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric       (a)         14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci, geometric       (a)         15. Use ratio notation, including reduction to simplest form       (2)         16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division into two parts as a ratio.       (a)         16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division into two parts as a ratio.       (a)         17. Express one quantity as fraction/percentage of another where fraction is, < or >1       (a)         19. Identify, describe & construct similar & congruent shapes by considering translation rotation, reflection and enlargement (whole number scale factor)       (a)         20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, regular polygons, & other polygons that are reflectively and rotanally symmetric. Use standard conventions for labelling the sides & angles of triangle ABC (2)         21. Construct and interpret plans & elevations of 3D shapes       (a)         22. Derive and apply formulae to calculate and solve problems involving rolume and surface area of cuboids (including cubes)	ALC	Where appropriate interpre	et expressions as functions with input	ts and outputs.	$(x_{-} - y_{-})$	4) 2)					
13. Objective interfection of softe infection of softe infection of a term rule. Recognise sequences inc Fibonacci (3)         14. Generate terms of a sequence from a term to term rule. Recognise sequences inc Fibonacci (3)         15. Use ratio notation, including reduction to simplest form (2)         Understand & use proportion as equality of ratios (3)         16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division into two parts as a ratio. (4)         17. Express one quantity as fraction/percentage of another where fraction is, < or >1 (3)         18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons. (2)         19. Identify, describe & construct similar & congruent shapes by considering translation rotation, reflection and enlargement (whole number scale factor)         20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, regular polygons, & other polygons that are reflectively and rotationally symmetric. Use standard conventions for labelling the sides & angles of triangle ABC (2)         21. Construct and interpret plans & elevations of 3D shapes (3)         22. Derive and apply formulae to calculate and solve problems involving area of trapeziums. (2)         23. Identify properties (faces, surfaces, edges vertices) of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres (2)         24. Derive and apply formulae to calculate and solve problems involving and surface area of cuboids (including cubes)         25. Understand & use the relationship between		12. Recognise, sketch & pro	o solve linear equations in one variab	1 = 1  step  8, 2  step	inc brackets	3) (4)					
Production         Construct and interpret plans & elevation of characteristic form         (2)           Understand         Use ratio notation, including reduction to simplest form         (2)           Understand         use proportion as equality of ratios         (3)           16. Divide a given quantity into two parts in a given part : part or part : whole ratio. Express division into two parts as a ratio.         (4)           17. Express one quantity as fraction/percentage of another where fraction is , < or >1         (3)           18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons.         (2)           19.Identify, describe & construct similar & congruent shapes by considering translation rotation, reflection and enlargement (whole number scale factor)         (4)           20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, , regular polygons, & other polygons that are reflectively and rotationally symmetric. Use standard conventions for labelling the sides & angles of triangle ABC (2)           21. Construct and interpret plans & elevations of 3D shapes         (3)           22. Derive and apply formulae to calculate and solve problems involving area of trapeziums.         (2)           23. Identify properties (faces, surfaces, edges vertices) of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres         (2)           23. Understand & use the relationship between parallel lines & alternate & corresponding angles.         (3)		14. Generate terms of a sec	uence from a term to term rule. Rec	ognise sequences ir	nc Fibonacci	וד. 					
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Bit Provides and Provided HTML Provided H	RATIO, PORTIC	16. Divide a given quantity i into two parts as a ratio.	into two parts in a given part : part o	r part : whole ratio.	Express divisi	on (4)					
BY       18. Derive and illustrate properties of triangles, quadrilaterals, and other plane figures inc regular polygons.       (2)         19.Identify, describe & construct similar & congruent shapes by considering translation rotation, reflection and enlargement (whole number scale factor)       (4)         20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, regular polygons, & other polygons that are reflectively and rotationally symmetric. Use standard conventions for labelling the sides & angles of triangle ABC       (2)         21. Construct and interpret plans & elevations of 3D shapes       (3)         22. Derive and apply formulae to calculate and solve problems involving area of trapeziums.       (2)         23. Identify properties (faces, surfaces, edges vertices) of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres       (2)         24. Derive and apply formulae to calculate and solve problems involving volume and surface area of cuboids (including cubes)       (2)         25. Understand & use the relationship between parallel lines & alternate & corresponding angles.       (3)         26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)         27. Record & describe the frequency of outcomes on the 0-1 probability scale       (3)         27. Record & describe the frequency of outcomes on the 0-1 probability using Venn diagrams       (3)         29. Construct & interpret bic charts       (2)	PRO	17. Express one quantity as	fraction/percentage of another whe	ere fraction is , $<$ or	>1	(3)					
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BY       20. Describe sketch & draw using conventional terms & notations: points, lines, parallel, perpendicular lines, right angles, , regular polygons, & other polygons that are reflectively and rotationally symmetric. Use standard conventions for labelling the sides & angles of triangle ABC (2)       21. Construct and interpret plans & elevations of 3D shapes       (3)         22. Derive and apply formulae to calculate and solve problems involving area of trapeziums.       (2)       (2)         23. Identify properties (faces, surfaces, edges vertices) of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres       (2)       (2)         24. Derive and apply formulae to calculate and solve problems involving volume and surface area of cuboids (including cubes)       (2)       (2)         25. Understand & use the relationship between parallel lines & alternate & corresponding angles.       (3)       (3)         26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)       (3)         27. Record & describe the frequency of outcomes on the 0-1 probability scale       (3)       (3)       (3)       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)       (3)       (3)       (3)       (3)       (3)       (3)       (3)       (3)       (4)       (4)       (5)       (5)       (5)       (5)       (5)       (5)       (6)       (6)       (6) <td>ш</td> <td>19.Identify, describe &amp; cons reflection and enlargement</td> <td>struct similar &amp; congruent shapes by (whole number scale factor)</td> <td>considering translat</td> <td>tion rotation,</td> <td>(4)</td> <td></td> <td></td> <td></td> <td></td> <td></td>	ш	19.Identify, describe & cons reflection and enlargement	struct similar & congruent shapes by (whole number scale factor)	considering translat	tion rotation,	(4)					
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23       21. Construct and interpret plans & elevations of 3D shapes       (3)         21. Construct and interpret plans & elevations of 3D shapes       (3)         22. Derive and apply formulae to calculate and solve problems involving area of trapeziums.       (2)         23. Identify properties (faces, surfaces, edges vertices) of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres       (2)         24. Derive and apply formulae to calculate and solve problems involving volume and surface area of cuboids (including cubes)       (2)         25. Understand & use the relationship between parallel lines & alternate & corresponding angles. (3)       (3)         26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)         27. Record & describe the frequency of outcomes on the 0-1 probability scale       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)         29. Construct & interpret pie charts       (2)         30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data	ЛЕА	perpendicular lines, right ar	ngles, , regular polygons, & other polysistendard conventions for labelling t	lygons that are refle	triangle ABC	(2)					
Europe       22. Derive and apply formulae to calculate and solve problems involving area of trapeziums.       (2)         23. Identify properties (faces, surfaces, edges vertices) of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres       (2)         24. Derive and apply formulae to calculate and solve problems involving volume and surface area of cuboids (including cubes)       (2)         25. Understand & use the relationship between parallel lines & alternate & corresponding angles.       (3)         26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)         27.Record & describe the frequency of outcomes on the 0-1 probability scale       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)         29. Construct & interpret pic charts       (2)         30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data	8	21. Construct and interpret	plans & elevations of 3D shapes			(3)			-		
23. Identify properties (faces, surfaces, edges vertices) of cubes, cuboids, prisms, cylinders,       (2)         24. Derive and apply formulae to calculate and solve problems involving volume and surface area of       (2)         24. Derive and apply formulae to calculate and solve problems involving volume and surface area of       (2)         25. Understand & use the relationship between parallel lines & alternate & corresponding angles. (3)       (3)         26. Use appropriate language to describe probability, including fairness, randomness, equally and       (3)         unequally likely outcomes.       (3)         27.Record & describe the frequency of outcomes on the 0-1 probability scale       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)         29. Construct & interpret pie charts       (2)         30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data	le l	22. Derive and apply formu	lae to calculate and solve problems in	nvolving area of tra	peziums.	(2)					
Image: Style of the set	EON	23. Identify properties (face	es, surfaces, edges vertices) of cubes,	cuboids, prisms, cy	linders,						
24. Derive and apply formulae to calculate and solve problems involving volume and surface area of cuboids (including cubes)       (2)         25. Understand & use the relationship between parallel lines & alternate & corresponding angles. (3)       (3)         26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)         27. Record & describe the frequency of outcomes on the 0-1 probability scale       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)         29. Construct & interpret pie charts       (2)         30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data       (3)	G	pyramids, cones and sphere	es		d	(2)					
25. Understand & use the relationship between parallel lines & alternate & corresponding angles. (3)       1         25. Understand & use the relationship between parallel lines & alternate & corresponding angles. (3)       26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)         26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)         27. Record & describe the frequency of outcomes on the 0-1 probability scale       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)         29. Construct & interpret pie charts       (2)         30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data		cuboids (including cubes)	lae to calculate and solve problems in	nvolving volume and	d surface area	(2)					
BOR       26. Use appropriate language to describe probability, including fairness, randomness, equally and unequally likely outcomes.       (3)         27. Record & describe the frequency of outcomes on the 0-1 probability scale       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)         29. Construct & interpret pie charts       (2)         30. Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data       (3)		25. Understand & use the re	elationship between parallel lines & a	alternate & correspo	onding angles.	(3)					
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Image: Construct & describe the frequency of outcomes on the of probability scale       (3)         28. Enumerate sets and unions/intersections of sets systematically using Venn diagrams       (3)         29. Construct & interpret pie charts       (2)         30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data       (3)	ROB	unequally likely outcomes.	requency of outcomes on the 0-1 pro	hability scale		(3)					
29. Construct & interpret pie charts       (2)         30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data       (3)	P	27. Record & describe the fi	ons/intersections of sets systematics		rame	(3)					
30.Describe, Interpret & compare observed distributions of a single variable through appropriate measures of central tendency (mean, median, mode)and spread(range) including from a table of ungrouped data (3)		29. Construct & internret ni	ie charts	iny using verni uldgi		(2)					
Image: second problem in the problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in the second problem is a second problem in the second problem in	TS	30.Describe. Interpret & co	ompare observed distributions of a sig	ngle variable throug	gh appropriate	\ <b>-</b> /					
	STA	measures of central tenden ungrouped data	icy (mean, median, mode)and spread	l(range) including fr	om a table of	(3)					

1-7: Gr 3 emerging	8-15: Gr 3 developing	16-23: Gr 3 securing	24-30: Gr 4 ready			
		GCSE Grade 3				

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Name	:		Class:	Year:						
					it 1	ut 2	r 1	r 2	1 1	m 2
Start s	score:	Target Score:	End Score:		Au	٩٢	Sp	Sp	Su	Su
	1.Use the four operatio	ns, including formal written metho	ods applied to dec	imals						
	2. Use the concepts and	cognise & use relationships betwe	including produc	t notation (4)						
BER	and extend to find HC	F & LCM	i including pi ou de							
ΜN	3. Round numbers and r	neasures to a given number of signif	icant figures							
z	Use approximation th	rough rounding to one significant fig	jure to estimate and	swers (4)						
	5. Work interchangeably	with terminating decimals and their	r corresponding fra	(3)						
	6 Simply & manipulate	algebraic expressions by taking out	common factors	(3)						
	7 Simplify expressions in	nyolving sums and products includir	ng the laws of indic	(5) es (5)						
	Calculate with zero and	l negative indices.								
	8. Rearrange simple forr	nulae to change the subject – 1 step	& 2-step	(4)						
	9. Substitute positive va	llues into expression/formulae invol	ving powers	(4)						
	10. Solve linear equation	ns with the unknown on both sides o	of the equation, inc	brackets. (5)						
RA	Know the difference bet	ween an equation & an identity	ns to linear equation	one using a						
GEB	graph	equations. Find approximate solutio	ons to intear equation	(5)						
AL	12. Identify and interpre	t gradients(rate of change) and inte	rcepts of linear fun	ctions						
	graphically and algebraid	cally inc reducing a given equation	to form: y=mx+c	(5)						
	13. Plot & interpret grap	ohs of functions in real contexts such	as simple kinemat	ic problems						
	14. Recognise, sketch an	d interpret graphs of simple quadra	tic functions inc roo	ots & turning						
	point			(5)						
	15. Generate sequence f	from position-to-term rule. Recognis	e arithmetic seque	ences & find						
	16. Simplify & manipul	ate algebraic expressions to maint	ain equivalence by	(4) v expanding						
NGE NGE	products of two binom	ials		(5)						
ORT	17. Understand and use	proportion as equality of ratios . Ap	ply ratio to real cor	ntexts and						
°ROF	18 Solve problems invo	rsion, comparison, scaling, mixing, m lving percentage change( increase/d	iaps ecrease) — includin	g the use of						
TIO, I ATES	the multiplier			(5)						
RAT & R	19. Use compound units	such as speed, rates of pay. Change	between compour	nd units (5)						
	20. Use sum of angles o	f triangle to deduce the angle sum o	f any polygon.							
URE	Derive properties of reg	ular polygons.	osite shanes inc in	(4)						
IEAS	22. Know & apply formu	lae to calculate volume of right prise	ns(including cylind	$\frac{1}{2} \left(\frac{1}{2}\right) = \frac{1}{2} \left(\frac{1}{2}\right)$						
 ⊗	23. Identify describe &	construct similar shapes by consider	ing enlargement wi	ith a fractional						
ΕT	scale factor	construct similar shapes by construct		(4)						
MO	24. Construct & interpre	t plans and elevations of 3D shapes		(3)						
GE	25. Measure line segme	nts and angles when interpreting ma	ps/ scale drawings	/use of						
	bearings	probability of all possible outcomes	sum to 1	(3)						
в	20. Onderstand that the	a frequency of outcomes using two-	way tables & freque	(4)						
PRO	28. Generate theoretica	I sample spaces for combined events	and use to calcula							
	probabilities			(4)						
	29. Estimate the mean	and work out the modal/median cl	ass interval from	a grouped						
S	frequency table	thomatical relationshing hot was	two variables 0 :11	(3)						
STAT	scatter graphs. Recogn	ise correlation (and know it does r	not indicate causat	tion). Consider						
	outliers. Draw estimat	ed lines of best fit in scatter graph	s and make predic	ctions.						
	Interpolate & extrapola	ate trends while knowing the dange	ers of doing so.	(4)						

1-7: Gr 4 emerging	8-15: Gr 4 developing	16-23: Gr 4 securing	24-30: Gr 5 ready			

Note         Target Score:         Integrate Score:         IntegrateScore:         Integrate Score: <th< th=""><th>Nam</th><th>e:</th><th></th><th>Class:</th><th>Year:</th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	Nam	e:		Class:	Year:						
Nome         Linterpret & compare numbers in standard form Ax10° (1≤ A < 10 & h is an integer)         Image: Nome of the i	Start	score:	Target Score:	End Score:		Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
Big = 2         Use a calculator to calculate results & interpret them appropriately.         (5)         (5)           2. Calculate resulting errors expressed using inequality notation a< x ≤ b	ш	1.Interpret & compare numbe	ers in standard form Ax10 <sup>n</sup> ( $1 \le A < 10^{10}$	) & n is an integ	ger)						
2         2. Calculate resulting errors expressed using inequality notation a < x s h (s)	R R	Use a calculator to calculate re	esults & interpret them appropriately.		(5)						
Note two linear simultaneous equations, algebraically & graphically         (5)         (5)           4. Simplify & manipulate algebraic expressions by factorising expressions of form x <sup>2+</sup> bx+c         (5)         (5)           Solve duratic equations algebraically by factorising expressions of form x <sup>2+</sup> bx+c         (5)         (5)           6. Rearrange more complex formulae to change the subject including reduce a given linear         (5)         (7)           equation in two variables to the standard form y=mx+c         (5)         (7)         (7)           9. Calculate & interpret gradients (as a red of change) and intercepts of graphs numerically, graphically and algebraically graphically and algebraically for simple cubic functions and the reciprocal function to variable to subject including reduce a given involving for the subject including reduce a given involve integers (5)         (7)           10. Pote subjects and negative integers into linear expressions and expressions involving graph (5)         (7)         (7)           11. Recognite, sketch and interpret graphs of simple cubic functions and the reciprocal function graphical subject including real graphs (5)         (8)         (8)           12. Substitute positive and negative integers into linear expressions and expressions involving incret and inverse proportion.         (8)         (8)           13. Solve problems involving simple and compound interest in financial mathematics (	Ñ	2. Calculate resulting errors ex	xpressed using inequality notation a $<$	$x \leq b$	(5)						
A Simplify & manipulate algebraic expressions by factorising expressions of form x <sup>+</sup> bx+c		3.Solve two linear simultaneo	us equations , algebraically & graphica	lly	(5)						
Solve quadratic equations algebraically by factorising.         (5)         (6)         (7)           Solve quadratic equations algebraically by factorising.         (7)		4.Simplify & manipulate algeb	praic expressions by factorising express	ions of form x <sup>2</sup>	+bx+c						
Solucitation set to an inequality on a number line     the solution set to an inequality on a number line     the solution set to an inequality on a number line     equation intwo variables to the standard form y=xx+c     (5)     (1)     (2)		Solve quadratic equations alge	ebraically by factorising.	in one veriable	(5)						
6.Rearrange more complex formulae to change the subject including reduce a given linear equation in two variables to the standard form y=mx+c         (5)         (5)           7.Use algebraic methods to solve linear equations involving fractions         (5)         (1)         (2)           8.Use the form y=mx+c to identify parallel lines         (4)         (2)         (5)         (2)           9.Calculate & interpret gradients (as a rate of change) and intercepts of graphs numerically, graphically and algebraic         (5)         (2)         (2)           10.Plot & use quadratics graphs to estimate values of y when for given values of x and w Find approximate solutions to quadratic equations using a graph         (5)         (2)         (2)           10.Plot & use quadratics graphs to estimate values of y when for given values of x and w Find approximate solutions to quadratic equations using a graph         (5)         (2)         (2)           13.Solve problems involving simple and compound interest in financial mathematics         (5)         (2)         (2)           14.Solve original value problems involving greentage change (interpret percentage change as a decimal)         (5)         (2)         (2)           15.Solve problems involving direct and inverse proportion.         (5)         (2)         (2)         (2)           15.Solve problems involving arc lengths of ½ / ½ circles, inc multiples of π         (5)         (2)         (2)         (2)		the solution set to an inequali	ty on a number line		e, represent (5)						
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B. Use the form y=mx+c to identify parallel lines         (4)             9. Calculate & interpret gradients (as a rate of change) and intercepts of graphs numerically, graphically and algebraically         (5)             10. Plot & use quadratics graphs to estimate values of y when for given values of x and w Find approximate solutions to quadratic equations using a graph         (5)              11. Recognies, estech and interpret graphs of simple cubic functions and the reciprocal function powers         (4)              11. Recognies, estech and interpret graphs of simple cubic functions and the reciprocal function powers         (4)              11. Solve problems involving simple and compound interest in financial mathematics         (5)              14. Solve orbiginal value problems involving percentage change (interpret percentage change as a decimal)               16. Solve problems involving direct and inverse proportion, including graphical & algebraic representations. Know the difference between direct and inverse proportion.         (5)              10. Calculate & solve problems involving arc lengths of X / X circles, inc multiples of π         (5)              10. Calculate & solve problems involving arcs         (S)	BRA	7.Use algebraic methods to so	olve linear equations involving fractions	5	(5)						
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22. Know the formula for Pythagoras' Theorem and apply it to find lengths in right angles (5)       (5)         23. Know the Trigonometric ratios & apply to find lengths & angles in right angles triangles (5)       (5)         24. Know the exact values of sin0, cos0 for 0= 0, 30,45, 60, 90° & tan0 for 0=0,30,45, 60° (5)       (5)         24. Know the exact values of sin0, cos0 for 0= 0, 30,45, 60, 90° & tan0 for 0=0,30,45, 60° (5)       (5)         25. Derive & use the standard ruler & compass constructions: construct perpendicular bisector of a line segment; construct perpendicular bisector of an angle (5)       (5)         26. Derive & use the standard ruler & compass constructions: construct the perpendicular from or to a point on a line segment.       (5)         Recognise & use the perpendicular distance from a point to a line as the shortest distance to the line.       (5)         27. Enumerate sets and unions/intersections using Venn diagrams and use to calculate theoretical probabilities of independent combined events including tree diagrams (5)       (5)         28. Calculate the probabilities of independent combined events including tree diagrams (5)       (5)         30. Interpret & construct line graphs for time series data       (5)	SURI	21. Know & use the criteria to	r congruence of triangles (SSS, SAS, AS	SA, AAS, KHS)	(5)						
23. Know the Trigonometric ratios & apply to find lengths & angles in right angles triangles (5)       24. Know the exact values of sinO, cosO for O= 0, 30,45, 60, 90° & tanO for O=0,30,45, 60° (5)       24. Know the exact values of sinO, cosO for O= 0, 30,45, 60, 90° & tanO for O=0,30,45, 60° (5)       25. Derive & use the standard ruler & compass constructions: construct perpendicular bisector of a line segment; construct perpendicular bisector of an angle (5)       26. Derive & use the standard ruler & compass constructions: construct the perpendicular from or to a point on a line segment. Recognise & use the perpendicular distance from a point to a line as the shortest distance to the line. (5)       27. Enumerate sets and unions/intersections using Venn diagrams and use to calculate theoretical probabilities of independent combined events including tree diagrams (5)       29. Infer properties of a population from a sample, while knowing the limitations of sampling (5)       29. Interpret & construct line graphs for time series data       (5)	MEAS	22. Know the formula for Pytl triangles	hagoras' Theorem and apply it to find l	engths in right	angles (5)						
End of the segment; construct perpendicular bisector of a line segment; construct perpendicular bisector of a line segment; construct perpendicular bisector of an angle       (5)         26. Derive & use the standard ruler & compass constructions: construct the perpendicular bisector of a point on a line segment.       (5)         Recognise & use the perpendicular distance from a point to a line as the shortest distance to the line.       (5)         27.Enumerate sets and unions/intersections using Venn diagrams and use to calculate theoretical probabilities of independent combined events including tree diagrams       (5)         28.Calculate the properties of a population from a sample, while knowing the limitations of sampling       (5)       (5)         30. Interpret & construct line graphs for time series data       (5)       (5)       (5)	۲ & 8	23. Know the Trigonometric ra	atios & apply to find lengths & angles	n right angles t	riangles (5)						
Product       25.Derive & use the standard ruler & compass constructions: construct perpendicular bisector of a line segment; construct perpendicular bisector of an angle       (5)         26. Derive & use the standard ruler & compass constructions: construct the perpendicular from or to a point on a line segment. Recognise & use the perpendicular distance from a point to a line as the shortest distance to the line.       (5)         27.Enumerate sets and unions/intersections using Venn diagrams and use to calculate theoretical probabilities       (5)         28.Calculate the probabilities of independent combined events including tree diagrams       (5)         29. Infer properties of a population from a sample, while knowing the limitations of sampling       (5)         30. Interpret & construct line graphs for time series data       (5)	IETR	24. Know the exact values of s	$\sin\Theta$ , $\cos\Theta$ for $\Theta$ = 0, 30,45, 60, 90 <sup>0</sup> & ta	an $\Theta$ for $\Theta$ =0,30	,45, 60° <b>(5)</b>						
26. Derive & use the standard ruler & compass constructions: construct the perpendicular       Image: Comparison of the segment of the segment of the line.       Image: Comparison of the segment of the line.       Image: Comparison of the line of the line.       Image: Comparison of the line.       Image: Compari	GEON	25.Derive & use the standard ruler & compass constructions: construct perpendicular bisector of a line segment; construct perpendicular bisector of an angle									
from or to a point on a line segment.       Recognise & use the perpendicular distance from a point to a line as the shortest distance to the line.       (5)         27.Enumerate sets and unions/intersections using Venn diagrams and use to calculate theoretical probabilities       (5)         28.Calculate the probabilities of independent combined events including tree diagrams       (5)         29. Infer properties of a population from a sample, while knowing the limitations of sampling       (5)         30. Interpret & construct line graphs for time series data       (5)	-	26. Derive & use the standard ruler & compass constructions: construct the perpendicular from or to a point on a line company.									
Recognise a use the perpendicular distance from a point to a line as the shortest distance to the line.       (5)         Image: the line.       (5)         27.Enumerate sets and unions/intersections using Venn diagrams and use to calculate theoretical probabilities       (5)         28.Calculate the probabilities of independent combined events including tree diagrams       (5)         29. Infer properties of a population from a sample, while knowing the limitations of sampling       (5)         30. Interpret & construct line graphs for time series data       (5)		from or to a point on a line segment. Recognise & use the perpendicular distance from a point to a line as the shortest distance to									
By any order of a population from a sample, while knowing the limitations of sampling       (5)         29. Infer properties of a population from a sample, while knowing the limitations of sampling       (5)         30. Interpret & construct line graphs for time series data       (5)		the line.	icular distance from a point to a line as	the shortest di	(5)						
Opentheoretical probabilities(5)28.Calculate the probabilities of independent combined events including tree diagrams(5)29. Infer properties of a population from a sample, while knowing the limitations of sampling(5)30. Interpret & construct line graphs for time series data(5)		27.Enumerate sets and unions/intersections using Venn diagrams and use to calculate			ate		1				
<sup>C</sup> 28.Calculate the probabilities of independent combined events including tree diagrams           (5)               YE           29. Infer properties of a population from a sample, while knowing the limitations of sampling           (5)               30. Interpret & construct line graphs for time series data           (5)	ROB	theoretical probabilities (5			(5)		<u> </u>				
29. Infer properties of a population from a sample, while knowing the limitations of sampling       (5)         30. Interpret & construct line graphs for time series data       (5)	Ā	28.Calculate the probabilities of independent combined events including tree diagrams (5)			ams <b>(5)</b>						
30. Interpret & construct line graphs for time series data   (5)	TS	29. Infer properties of a population	on from a sample, while knowing the limitat	ions of sampling	(5)						
	STA	30. Interpret & construct line	graphs for time series data		(5)						

1-8 Gr 5 emerging	9-16 Gr 5 developing	17-23 Gr 5 securing GCSE Grade 4 <sup>+</sup> /5	24-30 Gr 6 ready			

Name:			Class:	Year:							
Start scor	e:	Target Score:	End Score:	:		ut 1	ut 2	pr 1	pr 2	um 1	um 2
	1 Calculate in st	and ard form $4\times 10^{1}$ (1 < 4 < 10.8 p is ap into	gor		(E)	٩	٩	S	S	S	S
			ger)		(S)						
BER	2.Estimate powe	ers and roots of any given positive number			(6)						
NB	3.Calculate with	fractional indices			(6)						
z	4.Change recurr	ing decimals into their corresponding fractio	ns and vv		(6)						
	5.Apply the proc	duct rule for counting			(6)						
	6. Expand more	than 2 binomials			(6)						
	7. Factorise qua	dratic expressions of form ax <sup>2</sup> + bx + c includ	ing difference o	of two							
	squares . Solve	quadratic equations by factorising			(6)						
	8. Use the form y	/=mx + c to identify perpendicular lines			(b) (5)						
	9.Find the equat	ion of a line given two points			(5)						
BRA	10.Find the equa	ation of a line given the gradient and one poir	it		(5)						
TGEI	11.Identify and	interpret roots, intercepts and turning points	of quadratic fur	nctions	(5)						
4	12.Deduce the ro	pots of quadratic functions algebraically			(5) (5)						
	13.Plot & interpr	ret graphs involving distance, speed and accel	eration		(5)						
	14. Solve linear	inequalities in two variable using set notatio	n and graph		(6)						
	15.Calculate the	nth term of a guadratic sequence			(6)						
	16. Recognise ar	nd use sequences of geometric progressions (	r <sup>n</sup> ) <b>inc surds</b>		(6)						
	17.Set up, solve	& interpret the answers to growth and decay	problems, inclu	ding							
P & C	compound inter	est			(5)						
PRO PRO RAT CHA	18. Construct &	Interpret equations that describe direct & in t X is inversely proportional to X is equivalent	to X is proportio	<b>n</b> . Shal to 1/V	(6) (5)						
	19. Apply the sta	andard circle theorems			( <u></u> )						
	20.Interpret and	I use negative scale factors for enlargement			(6)						
URE	21.Calculate arc	lengths, angles			(5)						
IEAS	22 Calculate area	a of sectors of circle, angles			(5)						
≥ ⊗	23.Calculate SA	of spheres , pyramids, cones and composite s	olids		(5)						
TRY	24. Calculate Vo	lume of spheres , pyramids, cones and compo	site solids		(5)						
Σ	25. Apply the co	ncepts of similarity to area of similar figures	5		(6)						
OH OH	26. Apply the co	ncepts of similarity to area and volume of si	imilar figures		(6)						
_	27. Apply addition	on & subtraction of vectors, multiplication by resentation of vectors.	a scalar, and dia	agrammatic	(5)						
8	28 Calculate and	interpret conditional probabilities through	two-way tables	tree	.~/						
PRO	diagrams &Venr	n diagrams	two-way tables	, 100	(6)						
LS	29.Construct and interpret cumulative frequency graphs				(6)						
STAI	30. Construct, in	terpret & compare distributions using box p	lots & measures	s of central							
	tendency and sp	pread including quartiles and inter-quartile r	ange		(6)						

1-7: Gr 6 emerging	8-14: Gr 6 developing	15-21: Gr 6 securing	22-30: Gr 7 ready			
		GCSE Grade 5 <sup>+</sup> /6 <sup>-</sup>				

# Aiming For Grade 7/8/9

Name:			Class:	Year:						
Start scor	re:	Target Score:	End Score	2:	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
ж.	1. Simplify surd expres	sions		(7)						
MBE	2. Manipulate express	ions involving surds. Rationalise d	enominators	(8)						
D Z	3.Apply & interpret	limits of accuracy inc. with upp	er & lower bound	ls (7)						
	4.Simplify & manipula	te expressions involving fractions		(9)						
	5. Solve more complex	equations with fractions		(7)						
	6. Solve quadratic equ	ations by factoring (including thos	e that need rearra	nging) (7)						
	7. Interpret expression	s as functions and the reverse pro	cess as inverse fun	ctions.						
	Interpret the succession	on of two functions as a composite	function.	(9)						
	8.Deduce the turning	points of quadratic functions by co	ompleting the squa	re (/)						
	9.Solve quadratic equa	itions by completing the square	aula	(9)						
	10.30 ve quadratic equ	audities in one variable using set	notation and on a d	(/) Tranh (9)						
BRA	12 Rearrange more co	mnley formulae where the new su	hiect annears twic							
ALGE	13 Recognise sketch a	nd interpret the exponential func	tion $v = k^x$ for nositi	tive values						
	of k			(8)						
	14.Recognise, sketch 8	a interpret the trigonometric funct	ions for angles of a	any size( <mark>8)</mark>						
	15.Sketch translations	and reflections of the graph of a g	iven function	(9)						
	16.Calculate or estima and other non-linear g	te the gradients of graphs and are raphs	as under graphs in	c quadratic <mark>(8)</mark>						
	17. Recognise & use th	e equation of a circle with centre	at the origin.	(9)						
	18.Find the equation o	f a tangent to a circle at a given po	pint	(9)						
	19.Solve two simultan quadratic	eous equations in two variables al	gebraically –one lii	near, one (8)						
D, TIOIN GE GE	20.Interpret the gradie change(gradient of tar	ent at a point on a curve as the inst gents & chords) in numerical, alge	tantaneous rate of braic & graphical c	contexts (8)						
RATIO PROPOR & RATE CHAN	21. Find approximate s Work with the general	olutions to equations numerically iterative process	using iteration	(9)						
	22. Know & apply Area	a = ½ absinC to calculate area, side	s, angles of any tria	angle (7)						
SURE	23.Prove the standard	circle theorems concerning angles	s, radii, tangents &	chords ( <mark>8)</mark>						
1EAS	24.Use the standard ci	rcle theorems to prove related res	sults	(9)						
≥ ∞	25. Apply Pythagoras	Theorem to 3D shapes		(7)						
ткү	26. Apply Trigonometr	y to 3D shapes		(8)						
OME	27.Know & apply the S	ine Rule to find unknown lengths	& angles	(7)						
GEO	28. Know & apply the	Cosine Rule to find unknown lengt	hs & angles	(7)						
	29. Use vectors to cons	truct geometric arguments and pr	oofs	(7)						
STATS	30. Construct and inter	pret histograms		(7)						

1-8 Gr 7 Emerging	9-16 Gr 7 Developing	17-23 Gr 7/8 Securing	24-30 Gr 8/9 Ready			
GCSE 6+	GCSE 7	GCSE 7+/8-	GCSE 8/9			

## **Aiming For WA**

Name: Class: Year:						Year:		2		2	1	7
Start score: Target Score:			End Score:			Aut 3	Aut 2	Spr 1	Spri	Sum	Sum	
Place Value	1. Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number.											
	2. Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).											
	3. Compare and order nos up to 1000. Read and write nos up to 1000 in numerals and in words.											
	4. Identify, represent and estimate numbers using different representations.											
	5. Solve number problems and practical problems involving these ideas.											
Add and Sub	6. Add and subtract numbers mentally, including: a 3-digit no and 1s, 10s, 100s.											
	7. Add and sub numbers with up to 3 digits, using formal written methods of columnar add and sub.											
	8. Estimate the answer to a calculation and use inverse operations to check answers.											
	9. Solve probs, inc missing no probs, using number facts, place value, and more complex add/sub.											
Mult and Div	10. Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.											
	11. Write and calc math statements for x and ÷ using the tables they know, including 2-digit numbers times 1-digit numbers, using mental and formal written methods.											
	12. Solve probs and missing number probs, involving x and ÷, including integer scaling probs and correspondence probs in which n objects are connected to m objects.											
	13. Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.											
Fractions	14. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.											
	15. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.											
	16. Recognise and show, using diagrams, equivalent fractions with small denominators.											
	17. Add and sub fractions with the same denominator within one whole (e.g. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ ).											
	18. Compare and order unit fractions, and fractions with the same denominators.											
	19. Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).											
	20. Measure the perimeter of simple 2-D shapes.											
SURE	21. Add and subtract amounts of money to give change, using both £ and p in practical contexts.											
MEA	22. Tell/write the time from an analogue clock, inc Roman numerals from I to XII, and 12-hr/24-hr clocks.											
	23. Estimate and read time with increasing accuracy to nearest min; record/compare time in secs, mins, hrs. Use vocab such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.											
	24. Know the no of seconds in a minute and the number of days in each month, year and leap year.											
GEOMETRY	25. Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.											
	26. Recognise that angles are a property of shape or a description of a turn.											
	27. Identify right angles, recognise that 2 right angles make a half-turn, 3 make three quarters of a turn and 4 a complete turn. Identify whether angles are greater than or less than a right angle.											
	28. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.											
ΛTS	29. Interpret and pre	esent data using bar charts	, pictograms and	tables.								
ST/	30. Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.											
1-8: WA emerging 9-16: WA developing 17-24: WA securing 25-30: WB ready												

## **Aiming For WB**

Name:				Class:		Year:		•		2	1	2
Start score: Target Score:				End Score:			Aut 1	Aut 2	Spr 1	Spri 2	Sum	Sum
Place Value	1. Count in multiples of 6, 7, 9, 25 and 1000.											
	2. Find 1000 more or less than a given number. Round any number to the nearest 10, 100 or 1000.											
	3. Count backwards through zero to include negative numbers.											
	4. Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens, and ones).											
	Order and compare numbers beyond 1000.											1
	5. Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.											
Add and Sub	6. Add and subtract numbers with up to 4 digits using the formal written methods of columnar											
	addition and subtraction where appropriate. 7. Estimate and use inverse operations to check answers to a calculation.											
	8. Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.											1
Mult and Divide	9. Recall multiplication and division facts for multiplication tables up to 12 × 12.											
	10. Recognise and use factor pairs and commutativity in mental calculations.											
	11. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.											
	12. Solve probs involving x and +, inc. using the distributive law to mult 2 digit nos by 1 digit, integer											
	scaling probs and harder correspondence probs such as n objects are connected to m objects.											
				1411410111								
	14. Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten											
suc	15. Add and subtract fractions with the same denominator.											
Fractic	16. Recognise and w	vrite decimal equivalents o	f any number of t	enths or hu	ndredth	s; and the						
	decimal equivalents to $\frac{1}{2}$ , $\frac{1}{2}$ and three quarters.											
	digits in the answer as ones, tenths and hundredths.											1
	18. Round decimals with one decimal place to the nearest whole number. Solve simple measure and											
	money problems involving fractions and decimals to 2 decimal places.											
MEASURE	19. Convert between different units of measure (e.g. kilometre to metre). Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days).											1
	20. Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres											
	and metres. Find the area of rectilinear shapes by counting squares.											
	21. Estimate, compare and calculate different measures, including money in pounds and pence.										1	
	22. Read, write and convert time between analogue and digital 12 and 24-hour clocks.											
GEOMETRY	23. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes											
	24. Identify acute and obtuse angles and compare and order angles up to two right angles by size.											
	25. Identify lines of symmetry in 2-D shapes presented in different orientations.											
	26. Complete a simple symmetric figure with respect to a specific line of symmetry.											
	27. Describe positions on a 2-D grid as coordinates in the first quadrant. Describe movements											
	between positions as translations of a given unit to the left/right and up/down. 28. Plot specified points and draw sides to complete a given polygon.											
	20. Interpret and groups discrete and continue data with polygon.											
٨TS	29. Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.											
STA	30. Solve comparison, sum and difference problems using information presented in bar charts, nictograms, tables and other graphs											
1-8: WB emerging 9-16: WB developing 17-24: WB securing 25-30: Gr 1 ready												
1		1					1					