

PERSONALISED LEARNING CHECKLIST

Year 10 (F)– White Rose Maths

CM
Link

Sparx
Link

Red

Amber

Green

Revised
(Tick)

Areas of Study:

Topic 1: Congruence, similarity and enlargement

Autumn Term

1	Enlarge by a positive scale factor (Q2)	104	U519				
2	Identify similar and congruent shapes (Q1&7)	291 66	U551 U790				
3	Work out missing sides and angles in similar shapes (Q5&9)	292	U578				
4	Use parallel lines to find missing angles (Q6&8)	25	U826				

Topic 2: Trigonometry

5	Work fluently with hypotenuse, opposite and adjacent sides (Q1,4&5)	329					
6	Use the tan, sine and cosine ratio to find missing side lengths (Q6&10)	330	U283				
7	Use the tan, sine and cosine ratio to find missing angles (Q7)	331	U545				
8	Calculate sides using Pythagoras' Theorem (Q2)	257	U385				

Topic 3: Representing solutions of equations and inequalities

9	Form and solve equations and inequalities (Q1&3)	178	U337				
10	Represent and interpret solutions on a number line as inequalities (Q2)	177	U509				
11	Draw straight line graphs and find solutions to equations (Q4)	187	U741				
12	Form and solve equations and inequalities with unknowns on both sides (Q5&6)	113	U870 U738				

Topic 4: Simultaneous equations

13	Determine whether (x,y) is a solution (Q1&2)	191					
14	Solve by substituting an expression (Q5)	20	U201				
15	Solve graphically (Q4)	297					
16	Solve simultaneous equations (Q3,7&9)	295	U760				
17	Form and solve linear simultaneous equations (Q8)	295	U269				

Topic 5: Angles and bearings

Spring Term

18	Measure and read bearings (Q2&4)	26	U525				
19	Make scale drawings using bearings (Q5)	283					
20	Calculate bearings using angle rules (Q6)	27	U107				
21	Solve bearings problems using trigonometry (Q7)		U164				

Topic 6: Working with circles							
22	Recognise and label parts of a circle (Q1)	61	U767				
23	Calculate the area of a sector (Q4)	46	U373				
24	Understand and use volume of a cone, cylinder and sphere (Q5,6&8)	357 359 361	U116 U915 U617				
25	Understand and use surface area of a cone, cylinder and sphere (Q6&7)	314 315 313	U523 U464 U893				
Topic 7: Vectors							
26	Understand and read vector notation (Q1&2)	353	U632				
27	Draw vectors (Q3)	353a					
28	Addition and subtraction of column vectors (Q4)	353	U903				
29	Draw and understand vectors with addition/subtraction (Q5&6)	353a	U632 U903				
Topic 8: Ratio and fractions							
30	Simplifying and equivalent ratio (Q1&4a)	269	U687				
31	Link ratios and fractions (Q2a&3)	269a	U176				
32	Share in a given ratio (Q2b,2c&5)	270	U577				
33	Solve 'best buy' problems (Q6)	210					
34	Ratio with algebra (Q7)		U676				
Topic 9: Percentages and interest							
35	Convert and compare FDP (Q1)	130	Q128				
36	Work out percentages of amounts (Q2)	234 235	U554 U349				
37	Increase/ decrease by a given percentage (Q3)	238	M476 M533				
38	Express one number as a percentage (Q4)	237	U925				
39	Calculate simple and compound interest (Q5&7)	236a 236	U533 U332				
40	Find the original value (Q6)	240	U286				
41	Calculate repeated percentage change (Q8)	233	U671				
Topic 10: Probability							
42	Find probabilities of single events (Q1)	245	U408				
43	Use probability that sums to 1 (Q2)	251	U408				
44	Use sample space diagrams and two-way tables (Q3&4)	246	U104				
45	Use tree diagrams (Q5)	252	U558				
46	Estimate probabilities (Q6)						
47	Use Venn diagrams (Q7)	380	U476				

Topic 11: Collecting, representing and interpreting data				Summer Term			
48	Construct frequency polygons (Q1)	154 155	U840				
49	Interpret two-way tables & pie charts (Q3&6)	319 164	U981 U172				
50	Find and interpret averages from a grouped frequency table (Q5)	52 55	U877				
51	Construct and interpret time series graphs, stem and leaf diagrams and scatter graphs (Q4,7&8)	382	U200 U909 U199 U277				
Topic 12: Non-Calculator methods							
52	Use mental/written methods for the four number operations (Q1,2&7)		U417 U127 U453				
53	Estimate solutions (Q3)	215	U225				
54	Use four operations for fractions (Q4)	132- 134 142	U736 U475 U544				
55	Understand limits of accuracy (Q5)	183 184					
56	Write exact answers (Q6)						
57	Understand financial maths (Q8)	400a- 400j	U901				
Topic 13: Types of number and sequences							
58	Understand factors and multiples (Q1)	216 220	M823				
59	Describe and continue sequences (Q2,3a&4)	286	M991				
60	Find the nth term of a linear sequence (Q3b&3c)	288	U498				
61	Express numbers as a product of primes (Q5a&6)	223	M108				
62	Find the HCF and LCM (Q5c&5d)	218 219	M365				
Topic 14: Indices and roots							
63	Identify square and cube numbers (Q1)	226 212					
64	Understand standard form (Q2&Q4)	300	M719				
65	Calculate roots (Q3)	228	M135				
66	Compare values of numbers with indices (Q5)						
67	Understand indices rules: power zero, negative indices, brackets and addition/subtraction rule (Q6&7)	174 175	M330 U534				
Topic 15: Manipulating expressions							
68	Simplify algebraic expressions (Q1&5)	9	U105				
69	Form and solve equations/inequalities (Q2,3&9)	115	E290				
70	Solve problems with identities (Q4&8)	367					
71	Work with algebraic proofs (Q6&7)	365	U582				

