

PERSONALISED LEARNING CHECKLIST

Year 10 (H) – White Rose Maths

CM
Link

Sparx
Link

Red

Amber

Green

Revised
(Tick)

Areas of Study:

Topic 1: Congruence, similarity and enlargement

Autumn Term

1	Identify similar/congruent shapes and state the conditions of congruent triangles (Q1,2,3&8)	291 66	U551 U790				
2	Enlarge by a Negative scale factor (Q4)	108	U519				
3	Use parallel lines to find missing angles (Q5)	25	U826				
4	Prove triangles are congruent/similar (Q6&9)	292 67	U578 U887				
5	Find the volume of similar shapes (Q7)	293b	U110				

Topic 2: Trigonometry

6	Use the tan, sine and cosine ratio to find missing side lengths and angles (Q1,3&7)	329 330 331	U283 U545				
7	Calculate sides using Pythagoras' Theorem (Q2)	257	U385				
8	Use trigonometry in 3-D shapes (Q4)	332	U170				
9	Use sine and cosine rules (Q5&8)	333 335	U591 U952				
10	Use a formula to find the area of non-right-angled triangles (Q6)	337	U592				

Topic 3: Representing solutions of equations and inequalities

11	Form and solve equations and inequalities (Q1&4)	178	U337				
12	Represent and interpret solutions on a number line as inequalities (Q2&3)	177	U509				
13	Represent inequalities as straight line graphs and find regions that satisfy inequalities (Q5)	182	U747				
14	Solve quadratic equations using factorisation (Q6&7)	266	U178 U858				

Topic 4: Simultaneous equations

15	Determine whether (x,y) is a solution (Q1&2)	191	U760				
16	Form and/or solve simultaneous equations (Q4,5&7)	295	U269 U137 U760				
17	Solve simultaneous equations graphically (Q6)	297	U601				
18	Solve simultaneous equations with quadratics using substitution (Q8)	298	U547				

Topic 5: Angles and bearing					Spring Term		
19	Measure and read bearings (Q1,2&3)	26	U525				
20	Make scale drawings using bearings (Q4)	283	U257				
21	Solve bearings problems using trigonometry (Q5)		U164				
22	Bearings problems with Sine/Cosine rules (Q6)		U591				
Topic 6: Working with circles							
23	Calculate the area of a sector (Q1)	46	U373				
24	Solve problems with arc length (Q2)	58	U221				
25	Understand and use volume of a cone, cylinder and sphere (Q3&5)	357 359 361	U116 U915 U617				
26	Understand and use surface area of a cone, cylinder and sphere (Q7)	314 315 313	U523 U464 U893				
27	Apply and prove circle theorem problems (Q4&6)	64 65abc	U807 U251 U459				
Topic 7: Vectors							
28	Understand and read vector notation (Q1)	353a	U632				
29	Addition and subtraction of column vectors (Q2)	353a	U903				
30	Understand vectors multiplied by a scalar (Q3)	353a	U564				
31	Understand vector journeys in shapes (Q4&5)	353	U781				
32	Understand Co-linear points using vectors (Q6)	353	U660				
Topic 8: Ratio and fractions							
33	Write ratio as a fraction	269	U687				
	Share an amount into a ratio	270	U577				
	Work out one value when given another (Q1)	271	U753				
34	Link ratios to fractions and Percentages (Q2&3)	269a 270	U176 U577				
35	Solve 'best buy' problems (Q4)	210	U595				
36	Ratio with algebra (Q5)	271d	U676				
37	Interpret ratios in the form 1:n or n:1 (Q7)	271c	U921				
38	Ratio with linear/area/volume problems (Q6&8)	271e	U595				
Topic 9: Percentages and interest							
39	Increase/ decrease by a given percentage (Q1)	238	U554 U349				
40	Express one number as a percentage (Q2)	237	U925				
41	Calculate simple and compound interest (Q3)	236a 236	U533 U332				
42	Find the original value (Q4)	240	U286				
43	Calculate repeated percentage change (Q5)	233	U671				
44	Understand Iterative process (Q7)	373a	U434				
Topic 10: Probability							
45	Use sample space diagrams (Q1)	246	U104				
46	Use probability that sums to 1 (Q2)	251	U408				
47	Use tree diagrams (Q3&6)	252	U558 U280				
48	Estimate with probabilities (Q4)	248	U580				
49	Use Venn diagrams (Q5)	380	U476				

Topic 11: Collecting, representing and interpreting data						Summer Term	
50	Construct and interpret time series graphs (Q1)	382 160	U193				
51	Find and interpret averages from a grouped frequency table (Q2)	52 55	U877				
52	Construct and Interpret Cumulative frequency graphs (Q3)	154 155	U182 U642				
53	Interpret Box plots (Q4)	149 150	U879				
54	Construct and Interpret Histograms (Q6)	157 158	U983				
Topic 12: Non-Calculator methods							
55	Use mental/written methods for the four number operations (Q1)	132 133 144	U417 U127 U453				
56	Use four operations for fractions (Q2)	132- 134 142	U736 U475 U544				
57	Estimate solutions (Q3)	215	U225				
58	Understand financial maths (Q4)	400a- 400j	U901				
59	Understand and calculate surds (Q5&6)	307 308	U499 U872				
60	Understand limits of accuracy (Q7)	183 184	U657				
61	Convert recurring decimals to fractions (Q8)	96	U689				
Topic 13: Types of number and sequences							
62	Describe and continue arithmetic and geometric sequences (Q1&2)	286	M991				
63	Express numbers as product of primes and find the HCF & LCM using Venn Diagrams (Q3)	223 218 219	M108 M365				
64	Use the nth term of a linear sequence (Q4)	288	U498				
65	Describe and continue sequences using surds (Q5)	388a 388b 388c	U171				
66	Describe and continue quadratic/geometric sequences (Q6&7)	388	U206				
Topic 14: Indices and roots							
67	Understand standard form (Q1)	300	M719				
68	Compare values of numbers with indices (Q2)	175	U264				
69	Understand indices rules: power zero, negative/fractional indices, brackets and addition/subtraction rule (Q3,4,5&6)	173 174 175	M330 U534				
Topic 15: Manipulating expressions							
70	Solve problems with identities (Q1)	367					
71	Simplify algebraic fractions (Q2&3)	9	U105				
72	Work with algebraic proofs (Q4)	365	U582				
73	Complete operations with algebraic fractions (Q5,6,7,8&9)	115	E290				