

PERSONALISED LEARNING CHECKLIST

Year 11 (H) – White Rose Maths

CM
Link

Sparx
Link

Red

Amber

Green

Revised
(Tick)

Areas of Study:

Topic 1: Gradients and Lines

Autumn Term

1	Interpret and plot straight line graphs in the form of $y=mx+c$ (Q1,2&3)	186 187 191	U741				
2	Find the gradient and equation of straight-line graphs from given one or two points (Q4&6)	189 194 195	U477 U848				
3	Solve simultaneous equations graphically (Q5)	297	U836				
4	Find the equations of perpendicular lines (Q7)	196 197	U898 U836				

Topic 2: Non Linear Graphs

5	Plot and read from quadratic, cubic and reciprocal graphs (Q1&2)	264 344 346	U601 U989 U667 U980				
6	Identify graph shapes (Q3)	346a	U455				
7	Find and use the equation of a circle centre (0,0) (Q4)	12	U567				
8	Find the equation of the tangent to any curve (Q5)		U800 U882				
9	Understand and use exponential graphs (Q6)	345	U229				

Topic 3: Using Graphs

10	Interpret and construct speed/distance/time graphs (Q1&5)	299 177 171	U914 U403				
11	Interpret and constructing piece wise/Step graphs (Q2)						
12	Find approximate solutions to equations using graphs (Q3)	265a	U667				
13	Interpret and construct conversion graphs and other real-life graphs (Q4)	151 152 160 171a	U638				
14	Estimate the area under a curve (Q6)	389	U882				

Topic 4: Expanding and Factorising							
15	Expand and factorise single brackets (Q1&2)	13 117	U365 U179				
16	Expand Binomials (Q3,4)	14	U768				
17	Solve quadratic equations using the quadratic formula (Q5)	267 267b	U665				
18	Completing the square (Q6)	10 267a	U397				
19	Form and solving quadratic equations (Q7)	119	U858				
Topic 5: Changing the Subject							
20	Solve linear equations (Q1)	110 114	U325 U599				
21	Solve inequalities (Q2)	177 178 182	U759 U509				
22	Change the subject of simple & complex formula (Q3,4,5,6&7)	7 8	U556				
23	Solve equations by iteration (Q8)	373 373a	U168				
Topic 6: Functions							
24	Substitution into expressions and formulae (Q1)	20	U585 U144				
25	Use function machines and function notation (Q2)	19 386	U613 U201				
26	Properties of quadratic graphs (Q3)	265	U667				
27	Substitute into functions and find inverse functions (Q4)	369	U637 U996				
28	Work with composite functions (Q5)	370	U895 U448				
Topic 7: Multiplicative Reasoning						Spring Term	
29	Understand direct proportion (Q1)	254	U721				
30	Calculate with pressure and density (Q2&4)	384 385	U910 U527 U842				
31	Ratio problems (Q3)	269 270a-e	U595				
32	Understand inverse proportion (Q5)	255	U357				
33	Construct direct proportion and inverse proportion equations (Q6&7)	255a 255b	U407 U138				
34	Use scale factors (Q8)	292	U110				

Topic 8: Geometric Reasoning							
35	Angles with parallel lines and interior/exterior angles with polygons (Q1&2)	25 32	U427 U826				
36	Basic angle facts (Q3)	30	U655				
37	Circle theorems (Q4,5&6)	64 65e 65f	U459 U489 U251 U130				
38	Solve problems including vectors (Q7)	353a	U781 U903 U632				
Topic 9: Algebraic Reasoning							
39	Simplify complex expressions (Q1)	16	U613 U201				
40	Use rules for sequences (Q2)	286	U978				
41	Find the nth term of a linear and quadratic sequences (Q3&6)	288 388a-c	U206				
42	Inequalities in two variables (Q4)	182	U133				
43	Solve linear simultaneous equations (Q5)	296 295	U760				
44	Form algebraic proof (Q7)	365	U269				
45	Solve quadratic simultaneous equations (Q8)	298	U836 U547				
Topic 10: Transforming and constructing							
46	Line symmetry and rotational symmetry (Q1)	316 317	U121 U849				
47	Perform and describe series of transformations-translation, enlargements, rotation and reflection (Q2,5)	322a 326a 275 272 104 105	U196 U799 U696				
48	Construction and Loci problems (Q3,6)	72 28 25 26 77	U245 U979 U820 U787				
49	Perform and describe Negative enlargements of shapes (Q4)	108	U134				
50	Identify invariant points and lines (Q7)	392					
51	Sketch and identify translation and reflection of a graph of a given function (Q8)	323 324	U598 U487				

Topic 11: Listing and Describing

52	Interpreting scatter graphs (Q1)	166 168	U199 U277 U128				
53	Construct and interpret plans and elevations (Q2)	354	U743				
54	Complete and use Venn diagrams (Q3)	380	U476 U748				
55	Use the product rule for counting (Q4)	383	U369				
56	Sample spaces and probability (Q5)	246	U104				
57	Use data to compare distributions (Q6)	57c	U717				

Topic 12: Show that....

58	Show that with Data (Q1)	246 55	U569				
59	Show that with Algebra (Q2,6)	365 367	U582				
60	Show that with Shapes (Q3)	366	U427 U329				
61	Show that with Congruent triangles (Q4)	67	U887 U122				
62	Show that with Number (Q5)	96 219 218 305	U550 U689 U751 U529				
63	Show that with Vectors (Q7)	353	U903 U564				