

# YEAR 11 MATHEMATICS PASSPORT



## Personal Learning Checklist

### HIGHER TIER

Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

My Target Grade is \_\_\_\_\_

		Green - Got It	Purple - Progressing	Yellow - Not There Yet				
MW Clip	Grade	Topic			Journey to Success			
<b>PROBABILITY</b>								
90a	D	Simple probability (a) Listing outcomes						
90b	D	Simple probability (b) Listing probabilities						
91	D	Mutually exclusive events						
132	C	Experimental probability						
153	B	Simple tree diagrams						
154	B	Harder tree diagrams						
182	A & A*	Probability-And Or questions						
<b>SURVEYS, QUESTIONNAIRES AND DATA COLLECTION</b>								
84	D	Questionnaires & data collection						
134	C	Designing a good questionnaire						
183	A & A*	Stratified sampling						
<b>STATISTICAL CALCULATIONS, MEASURES OF TENDENCY AND MEASURES OF SPREAD</b>								
133a	C	Averages from a table (a) Basics						
133b	C	Averages from a table (b) Estimate for the mean						
151	B	Cumulative frequency						
152	B	Box plots						
<b>STATISTICAL DIAGRAMS</b>								
85	D	Two way tables						
86	D	Pie charts						
87	D	Scatter graphs						
88	D	Frequency diagrams						
89	D	Stem and leaf diagrams						
181	A & A*	Histograms						

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<b>CALCULATIONS</b>								
50	D	Value for money						
59	D	BODMAS/BIDMAS						
60	D	Long multiplication with decimals						
63	D	Hard calculator questions						
64	D	Real life money calculations						
99	C	Four rules of negatives						
100	C	Dividing by a 2-digit decimals						
126	C	Compound measures						
<b>FRACTIONS, DECIMALS AND PERCENTAGES</b>								
47	D	Equivalent fractions						
48	D	Simplifying fractions						
49	D	Ordering fractions						
51	D	% of an amount with calculator						
52	D	% of an amount without calculator						
53	D	Change to % with calculator						
54	D	Change to % without calculator						
55	D	Finding a fraction of an amount						
56a	D	Addition & subtraction of fractions a) Standard method						
56b	D	Addition & subtraction of fractions b) Quick-fix method						
57	D	Multiplying and dividing fractions						
58	D	Changing fractions to decimals						
92	C	Percentages - overview						
93	C	% Increase/decrease						
98	C	Recurring decimals to fractions						
136	B	% increase & decrease						
137	B	Compound interest & depreciation						
138	B	Reverse percentage						
139a	B	Four rules of fractions a) Addition & subtraction						
139b	B	Four rules of fractions b) Multiplication & division						
155	A & A*	Recurring decimals						
158	A & A*	Rationalising the denominator						
<b>RATIOS, PROPORTIONS AND RATES OF CHANGE</b>								
61	D	Ratio						
62	D	Proportion recipe questions						
94	C	Ratio						
159	A & A*	Direct and inverse proportion						
<b>ROUNDING AND ESTIMATING</b>								
101	C	Estimating answers						
160	A & A*	Upper and lower bounds						
<b>SETS OF NUMBERS</b>								
44	D	Factors, multiples & primes						
45	D	Evaluate powers						
46	D	Understand squares, cubes & roots						
95	C	Product of prime factors						
96	C	HCF & LCM						
97	C	Place Value						
135a	B	Standard form a) Basics						
135b	B	Standard form b) Calculation						
156	A & A*	Fractional and negative indices						
157	A & A*	Surds						

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<b>EXPRESSIONS AND FORMULAE</b>							
66	D	Substitution					
102a	C	Algebra simplification a) Addition & Subtraction					
102b	C	Algebra simplification b) Multiplication					
103a	C	Expanding brackets a) Single brackets					
103b	C	Expanding brackets b) Double brackets					
104	C	Factorisation					
106	C	Forming equations					
107	C	Changing the subject of a formula					
111	C	Index notation for $\times$ & $\div$					
162	A & A*	Proof					
163a	A & A*	Algebraic fractions a) Simplifying					
163b	A & A*	Algebraic fractions b) Solving equations involving fractions					
164	A & A*	Rearranging difficult formulae					
<b>GRAPHS</b>							
78	D	Finding the midpoint of a line					
113	C	Drawing straight line graphs					
114	C	Finding the equation of a straight line					
116	C	Drawing quadratic graphs					
117	C	Real-life graphs					
143	B	Understanding $y=mx+c$					
144	B	Regions					
145	B	Graphs of cubic functions					
146	B	The shape of functions					
148	B	3D Co-ordinates					
166	A & A*	Gradient: parallel and perpendicular lines					
167	A & A*	Transformation of functions					
168	A & A*	Graphs of trig functions					
169	A & A*	Transformation of trig functions					
170	A & A*	Graphs of exponential functions					
172	A & A*	Equations of circles					
<b>SEQUENCES</b>							
65	D	Generate a sequence from the nth term					
112	C	Finding the nth term					
<b>SOLVING EQUATIONS</b>							
105a	C	Solving equations a) Balancing method					
105b	C	Solving equations b) Float & ping method					
108	C	Inequalities					
109	C	Solving inequalities					
110	C	Trial and improvement					
115	C	Solving simultaneous equations graphically					
140a	B	Solving quadratics (Factorising) a) Easy questions					
140b	B	Solving quadratics (Factorising) b) Hard questions					
141	B	The difference of two squares					
142a	B	Simultaneous equations a) Fast method					
142b	B	Simultaneous equations b) Simpler method					
161a	A & A*	Solving quadratic equations a) Using the formula					
161b	A & A*	Solving quadratic equations b) Forming and solving					
161c	A & A*	Solving quadratic equations c) Completing the square					
165	A & A*	Simultaneous equations (quadratics)					

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<b>ANGLES</b>							
67	D	Parallel lines					
68	D	Angle sum of a triangle					
70	D	Angles of regular polygons					
79	D	Measuring and drawing angles					
80	D	Drawing triangles					
131	C	Bearings					
149	B	Similar shapes					
150	B	Circle theorems					
<b>LENGTHS, AREA AND VOLUME</b>							
71	D	Areas of circles					
72	D	Circumferences of circles					
73	D	Areas of compound shapes					
120	C	Surface area of cuboids					
121	C	Surface area of triangular prisms					
122	C	Volume of a prism					
176	A & A*	Area of triangles: $\frac{1}{2}ab\sin c$					
177a	A & A*	Cones and spheres a) Typical exam q's					
177b	A & A*	Cones and spheres b) Harder exam q's					
178	A & A*	Segments of circles and frustums of cones					
<b>MEASURES AND MEASURING</b>							
124	C	Converting metric units					
125	C	Bounds					
<b>SHAPE (INCLUDING PYTHAGORAS AND TRIGONOMETRY)</b>							
69	D	Properties of special triangles					
81	D	Plans and elevations					
82	D	Nets					
118	C	Pythagoras' Theorem					
119	C	Pythagoras - Line on a graph					
127	C	Bisecting a line					
128	C	Drawing a perpendicular to a line					
129	C	Bisecting an angle					
130	C	Loci					
147a	B	Trigonometry a) Using formulae					
147b	B	Trigonometry b) Using SOH CAH TOA					
147c	B	Trigonometry c) Bearings by trigonometry					
173	A & A*	Sine and Cosine rules					
174	A & A*	Pythagoras in 3-D					
175	A & A*	Trigonometry in 3-D					
180	A & A*	Vectors					
<b>TRANSFORMATIONS AND SYMMETRY</b>							
74	D	Rotations					
75	D	Reflections					
76	D	Enlargements					
77	D	Translations					
83	D	Symmetries					
123	C	Similar shapes					
171	A & A*	Enlargements: negative scale factor					
179	A & A*	Congruent triangles					