Name:_____

Year 8 Extension Key Objectives Record Sheet: Levels (5)/6

1.	Add, subtract, multiply and divide fractions.	
2.	Use proportional reasoning to solve a problem, choosing the correct numbers to take as 100%, or as a whole.	
3.	Make and justify estimates and approximations of calculations.	
4.	Construct and solve linear equations with integer coefficients, using an appropriate method.	
5.	Generate terms of a sequence using term-to-term and position-to-term definitions of the sequence, on paper and using ICT; write an expression to describe the nth term of an arithmetic sequence.	
6.	Given values for m and c, find the gradient of lines given by equations of the form $y = mx + c$.	
7.	Construct functions arising from real-life problems and plot their corresponding graphs; interpret graphs arising from real situations.	
8.	Solve geometrical problems using properties of angles, of parallel and intersecting lines, and of triangles and other polygons.	
9.	Know that translations, rotations and reflections preserve length and angle and map objects on to congruent images.	
10.	Know and use the formulae for the circumference and area of a circle.	
11.	Design a survey or experiment to capture the necessary data from one or more sources; determine the sample size and degree of accuracy needed; design, trial and if necessary refine data collection sheets.	
12.	Communicate interpretations and results of a statistical enquiry using selected tables, graphs and diagrams in support.	
13.	Know that the sum of probabilities of all mutually exclusive outcomes is 1 and use this when solving problems.	
14.	Solve substantial problems by breaking them into simpler tasks, using a range of efficient techniques, methods and resources, including ICT; give solutions to an appropriate degree of accuracy.	
15.	Present a concise, reasoned argument, using symbols, diagrams, graphs and related explanatory text.	

Assessment 1:   Assessment 2:
Assessment 3:   Assessment 4:
End of year exam:

Target Level