Mathematics – Y7 Assessment Descriptors

	Foundation	Developing	Securing	Exceeding	Excelling
Year 7 Summer term	Confidently and independently be able to… • Use basic language associated with probability. Use language associated with probability on a probability scale. • Plot and identify coordinates in the first quadrant. Use simple one step function machines to generate values. • Understand that percentages relate to values out of 100. Write percentages from hundred squares. • Identify properties of 3D solids. Name 2d and 3d shapes. • Extract and interpret information presented in simple tables, lists, bar charts and pictograms. Collect and record discrete data. Find the mode and range for a set of data. • Tell the time using the 12 and 24 hour clock. Read simple information from timetables.	Confidently and independently be able to… • Write simple probabilities as fractions. Order events on a probability scale. • Use two step function machines to generate values. Identify and plot coordinates in all 4 quadrants. • Convert between decimals and percentages. Calculate basic percentages of amounts mentally eg. 50%, 25%, 10%. • Find the area and perimeter of simple shapes by counting squares. Use isometric paper to draw cuboids. • Display discrete data using bar charts and pictograms. Group data, where appropriate, in equal class intervals. Understand and use the mean of discrete data. • Convert times between 12 hour and 24 hour clocks. Calculate time differences. Read information from simple conversion graphs.	Confidently and independently be able to… • Find the probability when an event has equally likely outcomes. List outcomes systematically. Find the probability of outcomes from a single event. • Plot graphs of simple linear functions in 1st quadrant. Use negative numbers in all 4 operations. • Use a calculator to calculate percentages of amounts. Solve simple worded problems by finding a percentage of an amount. • Use the formulae to find the area and perimeter of a rectangle. Calculate the volume of cuboids. Draw 2d views of 3d representations. • Compare two simple distributions, using the range and one of mode, median or mean. Interpret graphs and diagrams, including pie charts, and draw conclusions. • Convert between metric units of measurements. Use exchange rates to calculate currency amounts by multiplying. Draw simple conversion graphs.	Confidently and independently be able to… • Know that probabilities sum to 1. Create & use sample space diagrams. Use theoretical or experimental probability to predict frequencies. • Identify the equations of horizontal and vertical lines. Draw the lines given the equations. Understand and find what m and c represent in the equation of a straight line graph. • Solve more complex worded problems by finding a percentage of an amount. Express an amount as a percentage. • Deduce and use formulae for the area of a triangle. Find the area of compound shapes composed of rectangles. Construct nets of prisms and pyramids. Find the surface area of a cuboid. • Construct & interpret pie charts. Find the mean from a frequency table. • Use conversion graphs to extrapolate information. Solve problems involving exchange rates.	Confidently and independently be able to… • Compare experimental and theoretical probabilities in simple contexts. Use tree diagrams to find the probability of an outcome. • Plot quadratic graphs. Plot linear functions, given algebraic equation (implicit or explicit). Identify parallel graphs and y-intercepts from implicit and explicit equations. • Use multipliers to calculate percentage increases. Calculate successive percentage changes. • Find lengths of sides when given the volume or surface area of a cuboid. Find the circumference and area of circles. Find the volume and surface area of prisms. Find the area/perimeter of more difficult compound shapes incl missing lengths. • Estimate the mean for grouped data. Work backwards to solve more complex problems when given the mean. • Convert between metric units of length and area.