

YEAR 10 FOUNDATION

HALF TERM 4

What? When? Why?	Lesson 1 Learning intentions (what can a student do at the end of the lesson)	Lesson 2 Learning intentions (what can a student do at the end of the lesson)	Lesson 3 Learning intentions (what can a student do at the end of the lesson)	Lesson 4 Learning intentions (what can a student do at the end of the lesson)
Week 1	Use positive integer powers and associated real roots (square, cube and higher) Recognise powers of 2, 3, 4, 5. including square numbers up to 15×15 know that $1000 = 10^3$ and 1 million = 10^6	Calculate with roots and with integer indices Estimate powers and roots of any given positive number	Calculate with roots, and with integer and fractional indices	Calculate with roots, and with integer and fractional indices
Week 2	Change between normal numbers and standard form for large numbers	Change between normal numbers and standard form for small numbers	Calculate with standard form without a calculator (inc problem solving)	Calculate with standard form with a calculator (inc problem solving).
Week 3	Express one quantity as a fraction of another, where the fraction is less than 1 or greater than 1(R)	Use ratio notation, including reduction to simplest form (inc 1:n and n:1)Express the division of a quantity into two parts as a ratio.	Divide a given quantity into two parts in a given part : part or part : whole ratio	Apply ratio to real contexts and problems (such as those involving conversion, comparison, scaling, mixing and concentrations)
Week 4	Change between fractions, ratios and percentages.	Relate ratios to fractions and to linear functions	Problem solving involving %.(past paper questions)	Identify and apply circle definitions and properties, including centre, radius, chord, diameter, circumference, tangent, arc, sector and segment
Week 5	Know and use the formula for the circumference of a circle. Find circumference in terms of π .(non calc)	Know and use the formula for the circumference of a circle.(calc)	Know and use the formula for the area of a circle. Find area in terms of π .(non calc)	Know and use the formula for the area of a circle.(calc)
Week 6	Find area of quadrants and semi circles.	Find perimeter of quadrants and semi circles.	Find area and perimeter of sectors.	Calculate surface area of spheres, cones and composite solids