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 x 15 know that $1000 = 10^3$ and 1 million = 10^6 Calculate with roots and with integer indices	Index rules	Index rules.
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.(R)	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 calculator)	Know and use the formula for the circumference of a circle.(calculator)	Know and use the formula for the area of a circle. Find area in terms of π. .(non calculator)	Know and use the formula for the area of a circle. .(calculator)
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