



YEAR 10 MATHEMATICS

No	Topic	STP 8A	CATs
31	Ratios Understand the concept of ratio as relative size; simplify a ratio; divide a quantity in a given ratio; understand and use map ratios and scales; solve simple direct proportion and inverse proportion problems.	Ch 5	Homework (Topic 31)
32	Area 2 - Triangles & Parallelograms Be able to calculate the area of a triangle, parallelogram and compound shapes that involve these shapes; understand and use squares and square roots.	Ch 7	
33	Transformations 1 Understand how to reflect a shape in a mirror line; translate a shape using a translation vector; rotate a shape through an angle about a point. Describe transformations fully.	Ch 11	Test (Topic 33) Homework (Topics 31-33)
34	Scale Drawings & Bearings Solve simple equations involving fractions; Understand and use the inequality symbols; Solve inequalities; Represent solutions on a number line; Use the method of trial & improvement to solve equations.	Ch 20	
35	Algebra -Equations & Inequalities Construct and use scale drawings. Understand and use angles of elevation, angles, angles of depression and three figure bearings.	Ch 12 & 17	Homework (Topic 36)
36	The Circle Use and understand the language of the circle; calculate the circumference and area of a circle; calculate the perimeters and areas of shapes which include sectors.	Ch 9	Homework (Topics 36)
CHRISTMAS EXAMINATIONS (mainly Topics 31 - 36 with some questions on Topics 1 - 30)			

37	Transformations 2 - Enlargements Enlarge a shape by a scale factor (positive whole number OR positive fractional) about a centre of enlargement. Find the centre of enlargement, given the object and image.	Ch 19	Test (Topic 37)
38	Family Finance Do calculations involving percentage change, discount and compound interest; draw currency exchange graphs; Do calculations involving currency exchange; understand more about 3 rd world debt and aid; Understand more about personal banking.	Work sheets	Homework (Topic 38)
39	Pythagoras' Theorem Discover Pythagoras' Theorem; Find the Hypotenuse of a right-angled triangle using Pythagoras' Theorem; Find a shorter side in a right-angled triangle; Find lengths in an isosceles triangle; Use Pythagorean Triples.	Ch 21	Homework (Topic 39) Homework (Topics 37-39)
40	Straight Line Graphs & $y = mx + c$ Draw straight line graphs; identify the equation of straight line graphs; find the gradient and intercept from a straight line graph; solve simultaneous equations graphically	Ch 13	Test (Topic 40)
41	Travel Graphs Understand and use Speed, Distance & Time; Interpret & draw Travel Graphs.	Ch 22	
42	Volume 2 - Prisms Understand the terms cross-section and prism; Calculate the volume of a prism; Use the formula for density, mass and volume.	Ch 18	Homework (Topics 40-42)
43	Continuous Data Understand the meaning of continuous data and class boundaries; draw frequency diagrams for continuous data; calculate mean for grouped continuous data; identify the modal class.	Ch 15	
SUMMER EXAMINATIONS (mainly Topics 31 - 43 with some questions on Topics 1 - 30)			
44	Financial Capability 3 Investigate careers involving Mathematics; Be aware of the factors that contribute to a family's financial decisions; Calculate the monthly financial cost for a household in the 21 st Century.	Work sheets	

Common Assessment Tasks (CATs) are completed by the entire year group, with results recorded centrally. Pupils will also be set other homeworks marked by the teacher and less formal homeworks in their jotters 3 or 4 times per week.

MyMaths is an online resource which can be used to supplement work done in class.