

THIRDS/YEAR 7 SYLLABUS ALL GROUPS

U3 rd sheet 1

Main book used STP 7A.

During this year the pupils will all follow the same work scheme, the classes will be taught in form groups for just over half a term and then set, based mainly on teacher assessment of work done and also on tests covering the work taught so far.

During this year it is important to teach the pupils to set their work out correctly, line under line. Answers only are not usually acceptable. It is also important that they learn to use symbolism correctly, (i.e. only use = when true) and that they learn to communicate mathematically.

It is our policy for pupils to have calculators (in all lessons - checked regularly - indiscriminate use is discouraged but encouraged in the right context)

Homework will usually be done in neat book. At least one mark per week to be recorded in mark book but some homeworks to be marked in class. Some notes, (listed below) appropriate for this year, must be given, these must be copied into pupils note books so that all pupils have the same - additional notes can be given as individual teacher wants.

Tests listed below must be done by all, at the same time, the completed scripts + test paper + % order list to be filed in the filing cabinet in labeled folder (orange). The results must be entered onto the appropriate spreadsheet.

We feel that it is important that the pupils feel that they are doing work that is new to them when they first come into the senior school so Angle Properties are done early in the first term. Basic number skills will be revised and extended, explaining that a lot of work in the Key stage 3 builds on work done at Key stage 2.. Correct spellings of mathematical words is stressed

The books cover all Ma 1 - 4, it is therefore important to do some of the investigation questions with all pupils - by agreement these will be decided - whilst the harder questions (in green boxes) should only be tackled by the more able pupils. Some investigations/puzzles are given as voluntary tasks.

Pupils are encouraged to use the summary sections on the green pages for revision purposes.

NOTES	1 (angles)	2 (whole nos.)	3 (factors & multiples)	15 (triangles, quads)	4 (fractions + and -)
	5 (decimals)	17 (rounding)	12 (basic algebra)	13 (directed nos.)	14 (equations)
	8 (simple units)	10 (averages)	9 (// lines)	16 (trianglea, quads	
TESTS	36 (angles)	1 (whole nos.)	40 (symmetry))	7 (factors & multiples)	2 (fractions and decimals)
	59 (algebra)	24 (simple areas)	(simple Stats)	+ 71 (FOR SETTING)	

CONTENT	KEY CONCEPTS	PRIOR KNOWLEDGE	RESOURCES	ASSESSMENT	TIME
1. <u>Introduction to Geometry</u> ANGLES	fractions of revolutions acute, obtuse, reflex drawing, measuring at point, vert opp adjacent	none	Book 7a chap 10 Notes 1 (angles)	Test 36 (angles)	5/6 lessons
2. <u>Whole Nos.</u> ADDITION & SUBTRACTION MULTIPLICATION & DIVISION INVESTIGATION	Table & Bond test Mixed eggs. Mental arith place value , columns mult by 10, 100, 20 etc. long mult and div. div by powers of 10 div by whole no order of operations. Rounding, estimate using 1 sig fig	Simple + , - , x, ÷ Of whole nos.	Book 7a chap 1 Book 7a chap 2 Sheet S 7 – 1 (using brackets) Notes 2 (whole nos.)	10 min table test no. bonds test Test 1 (whole nos.)	5 lessons 7 lessons 1 lesson
3. <u>Symmetry</u> LINE SYMMETRY ROTATIONAL SYMM INVESTIGATION	Accurate drawings object, image ways of fitting in hole Order of rotational symm Congruency Planes of symmetry - mention		Square books Tupperware toy Book 7a chap 11 Sheet S7-2 (basic shapes) S7 –4 (letters)	Test 40 (symmetry)	

SCHEME OF WORK – MATHEMATICS.**YEAR:****U3rds sheet 3**

CONTENT	KEY CONCEPTS	PRIOR KNOWLEDGE	RESOURCES	ASSESSMENT	TIME
4. <u>Numbers</u> DEFINITIONS WAYS OF WRITING INVESTIGATION 1	Odd, even, factors, multiples, primes Indices Prime factors LCM, HCF sequences Squares, cubes, triangular Word search 1 spellings		Book 7A chapt 4 Sheet S7 –5 (sequences) Notes 3 (factors)	10 min No-bond/table test Test 7 (factors)	
5. <u>Data</u> COLLECTING DISPLAYING	Surveys, sampling experiment bias Tallying frequency tables Spreadsheets on works / excel Bar charts, pictograms, pie charts Charts on works / excel		Book 7A chapt 3 I T Microsoft works Worksheets		
6. <u>Geometry</u> TRIANGLES QUADRILATERALS	Sides, angles – labelling Sum of angles, ext = sum of opp Types: equilateral, iscos, scalene types Sum of angles Constructions		Book 7A chapt 12 Notes 15 (triangle,quads)	Test spelling	

SCHEME OF WORK – MATHEMATICS.

YEAR: U3rds sheet 4

CONTENT	KEY CONCEPTS	PRIOR KNOWLEDGE	RESOURCES	ASSESSMENT	TIME
7. <u>Fractions</u> (non calculator) SIMPLIFYING ADDITION AND SUBTRACTION	Equivalence, simplifying < and > signs Fraction of Common denominator Combined + and – Mixed nos. Improper fractions Problems.	basic	Book 7A chapt 5 Chapt 6 Fraction book Notes 4 (fractions)		
8. <u>Decimals</u> (non calculator) FRACTION >< DECIMAL ADDITION, SUBTRACTION INVESTIGATION 2 MULTIPLICATION, DIVISION DEGREE OF ACCURACY FRACTIONS/DECIMAL EQUIVALENTS	Common decimals metric Use of columns Wording By powers of 10, numbers move By whole no., by decimal Long division by whole no. Long division by decimal – set 1 Correcting, decimal places Tenths and hundredths etc. Common decimals, fractions 3/8 is 3 divided by 8	basic	Book 7A chapt 5 Chapt 6 small Decimal book Book 7A chapt 5 Chapt 7 Notes 5 (decimals) Notes 17 (rounding)	Test 2 (frac , dec)	

SCHEME OF WORK – MATHEMATICS.

YEAR: U3rds sheet 5

CONTENT	KEY CONCEPTS	PRIOR KNOWLEDGE	RESOURCES	ASSESSMENT	TIME
9. <u>Algebra</u> FORMULAE DIRECTED NOS. SIMPLIFICATION	Use of letters – varying values Words > formulae Substitution number lines 4 operations rules of algebra	None Existence of –ve nos.	Book 7A chapt 17 Little blue book Notes 12 (algebra) Notes 13 (directednos)	?	
10. <u>Equations</u> UNDERSTANDING OF EQUATIONS 4 RULES FOR SOLVING MIXED OPERATIONS	Scales – 2 sides same Balance method Simple + and - same to both sides Simple x and / same to both sides Simple with 2 operations. Easy initial simplification	Basic algebra	Book 7A chapt 21 Little blue book Notes 14 (equations)	Test 59	

SCHEME OF WORK – MATHEMATICS.

YEAR: U3rds sheet 6

CONTENT	KEY CONCEPTS	PRIOR KNOWLEDGE	RESOURCES	ASSESSMENT	TIME
11. <u>Metric units</u>	Base 100, names Changing units Estimation	basic	Book 7A chapt 8		
12. <u>Area</u> 2 D CONCEPT AREA FORMULAE PERIMETER	Counting squares Rectangle, compound 1D length investigation p274	basic	Book 7A chapt 14 Notes in L4ths	Test 24 Area	
13. <u>Imperial Units</u>	Common usage Length, weight, capacity Equivalents History and interesting units		Book 7A chapt 9 Notes 8 (simple units)		
14. <u>Processing Data</u> DATA AVERAGES FREQUENCY TABLES	Tables Mean, median, mode Range Repeated data Grouping Formulae on works / excel		Book 7A chapt 19 IT microsoft Notes 10 (averages) Book 7A chapt 22	Test	

SCHEME OF WORK – MATHEMATICS.**YEAR: U3rds sheet 7**

CONTENT	KEY CONCEPTS	PRIOR KNOWLEDGE	RESOURCES	ASSESSMENT	TIME
15. <u>Coordinates</u> AXES PLOTING SHAPES	x and y axes +ve and –ve coordinates pictures triangles and quads – properties	basic	Book 7A chapt 16 Sheets of ‘pictures’ Book 7A chapt 18		
16. <u>Parallel lines</u> PROPERTIES ANGLES	Definition Corresponding, alternate, interior Problems using all known angle facts	none	Book 7A chapt 15 Notes 9	Test	
17. <u>Solids</u> DRAWING VOLUMES	Idea of 3D Drawing of cuboids / nets Use of squared and lined isometric paper Volume of cube and cuboid		Book 7A chapt 20		