

MATHEMATICS

Year 8 Curriculum

road map

AUTUMN TERM

PROPERTIES OF NUMBER, RATIO & SCALE, SEQUENCES

STUDENTS WILL DEVELOP A DEEPER UNDERSTANDING OF DIFFERENT TYPES OF NUMBERS E.G. SQUARE, PRIME, TRIANGULAR
STUDENTS WILL USE & UNDERSTAND RATIO NOTATION TO SHARE VALUES
STUDENTS WILL GENERATE SEQUENCES & FIND THE LINEAR NTH TERM
CHALLENGE: USE VENN DIAGRAMS TO CALCULATE THE HCF & LCM, EXPRESS RATIOS IN THE FORM 1 : N

HT1

HT2

AUTUMN TERM

MULTIPLICATIVE CHANGE, MULTIPLYING & DIVIDING FRACTIONS, INDICES & STANDARD FORM

STUDENTS WILL WORK WITH PROPORTION, CONVERSIONS & SCALE
STUDENTS WILL FIND THE PRODUCT OF FRACTIONS (& INTEGERS), USING THE RECIPROCAL TO DIVIDE FRACTIONS
CHALLENGE: EXPLORE DIRECT PROPORTION GRAPHS, MULTIPLY & DIVIDE IMPROPER FRACTIONS, MIXED NUMBERS AND ALGEBRAIC FRACTIONS

SPRING TERM

EXPRESSIONS AND EQUATIONS

STUDENTS WILL FORM, SIMPLIFY & SUBSTITUTE INTO ALGEBRAIC EXPRESSIONS
STUDENTS WILL EXPAND AND FACTORISE BRACKETS, SOLVE EQUATIONS INVOLVING BRACKETS AND CONFIDENTLY WORK WITH FORMULAE
CHALLENGE: EXPANDING DOUBLE BRACKETS, SOLVE EQUATIONS WITH UNKNOWN ON BOTH SIDES

HT3

HT4

SPRING TERM

FRACTIONS & PERCENTAGES

STUDENTS WILL CONVERT BETWEEN FRACTIONS, DECIMALS AND PERCENTAGES.
STUDENTS WILL CALCULATE PERCENTAGE INCREASES, DECREASES AND CHANGES USING BOTH NON-CALCULATOR AND CALCULATOR METHODS
CHALLENGE: FINDING THE ORIGINAL AMOUNT AFTER A PERCENTAGE CHANGE

SUMMER TERM

ANGLES IN PARALLEL LINES & POLYGONS, SETS, TABLES & PROBABILITY

STUDENTS WILL INVESTIGATE ANGLES IN PARALLEL LINES, THE PROPERTIES OF SPECIAL QUADRILATERALS AND USE THE SUM OF INTERIOR & EXTERIOR ANGLES
STUDENTS WILL IDENTIFY AND REPRESENT SETS, CREATING VENN DIAGRAMS TO UNDERSTAND THE INTERSECTION, UNION & COMPLEMENT.
STUDENTS WILL BE EXPOSED TO PROBABILITY USING TABLES & DIAGRAMS TO SUPPORT THEIR UNDERSTANDING
CHALLENGE: PROVE SIMPLE GEOMETRIC FACTS

HT5

HT6

SUMMER TERM

AREA & PERIMETER

STUDENTS WILL KNOW HOW TO CALCULATE THE AREAS OF KEY SHAPES INCLUDING A HOST OF QUADRILATERALS AND EXPANDING ONTO COMPOUND SHAPES
STUDENTS WILL WORK CONFIDENTLY WITH CIRCLES, FINDING THE CIRCUMFERENCE AND AREA
CHALLENGE: CONVERT METRIC UNITS OF AREA