Act Fast NL Year 7 KS3 Maths

Autumn 01

Exploring Sequences
Describe and continue sequences in diagram and number forms, both linear and non-linear
Compare numerical and graphical forms

Understanding & Using Algebraic Notion
Use single function machines and series of two function machines with numbers, bar models and letters
Use and interpret algebraic notion
Understand and use inverse operations
Form and substitute into expressions, including to generate sequences
Represent functions graphically

Equality & Equivalence
Understand equality
Use fact families
Form and solve one-step equations
Understand equivalence of algebraic expressions
Collect like terms

Autumn 02

Place Value & Ordering
Recognise and use integer place value up to one billion
Recognise and use decimal place to at least hundredths
Work out intervals and use number lines
Compare and order numbers
Use ordered lists to find the range and the median of a set of numbers
Round numbers to positive powers of ten
Round numbers to one significant figure

Fraction, Decimal & Percentages Equivalence
Represent tenths and hundredths on diagrams and number lines
Interchange between fractions, decimals and percentages for multiples of one tenth and one quarter
Interpret pie charts
Equivalent fractions
Convert between other fractions, decimals and percentages

Spring 01

Addition & Subtraction
Use mental and formal written methods of addition with integers and decimals, including choosing the most app
Solve problems in the context of perimeter, money and frequency trees and tables
Solve problems in the context of bar charts and line charts

Multiplication & Division
Multiply by 10, 100, 1,000, 0.1 & 0.001 and convert metric units
Use mental and formal written methods of multiplication and division
Find the HCF and LCM of small numbers
Evaluate areas of triangles, rectangles and parallelograms
Find the mean of a set of numbers
Find the simple fractions and percentages of amounts
Begin to use the order of operations

Fractions & Percentages of Amounts
Work out simple fractions and percentages of amounts with and without a calculator

Spring 02

Directed Number
Order directed numbers, both in contextualised and abstract situations
Use a calculator with directed number
Solve two-step equations with and without a calculator
Use the order of operations

Adding & Subtracting fractions
Represent tenths and hundredths on diagrams and number lines
Convert mixed numbers and improper fractions
Add & subtracts with the same denominator, one denominator as a multiple of the other and different denominators
Add and subtract fractions and decimals (e.g.- 3/4 + 0.2)

Summer 01

Construction & Measuring
Understand and use lettering and labelling notion for lines and angles
Draw and measure lines and angles accurately
Classify angles
Identify and draw parallel and perpendicular lines
Recognise types of triangle, quadrilateral and other polygons
Construct triangles given SSS, SAS & ASA
Draw and interpret pie charts

Geometric Reasoning
Calculate and use angles at a point, angles on a straight line and vertically opposite angles
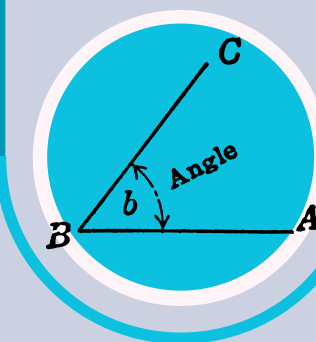Calculate missing angles in triangles and quadrilaterals

Summer 02

Developing Number Sense
Mental arithmetic strategies
Use known facts to derive other facts
Evaluate an algebraic expression given to a related fact
Use estimation

Sets & Probability
Understand and use set notion
Draw and interpret Venn diagrams
Understand and use the language of probability
Calculate the probability of a single event
Use the sum of probabilities of an event is 1

Prime Numbers & Proof
Recognise prime, square and triangular numbers
Express a number as a product of prime facts
Powers and roots
Make and test conjectures
Understand and use counterexamples