National 4 Distance Scheme of Learning

The lessons from Oak National Academy, have embedded quiz and exit tickets for students to check their understanding.

NUMERACY

WHOLE NUMBERS

Mixed addition and subtraction
Multiplying 3 digits by a single digit
Multiplying 3 digits by a single digit part 2
Multiplying & dividing by 10,100 & 1000
BODMAS

NEGATIVE NUMBERS

Adding negative numbers
Subtracting negative numbers
Multiplying/Dividing

DECIMALS

Add/Subtract decimals
Multiply/Divide by 10,100,1000
Multiply by multiples of 10,100,1000
Exchange rate

APPROXIMATION & ESTIMATION

Rounding decimals_part 1
Round decimals_part 2
Rounding to 2 decimal places
Rounding to a particular significant figure
Estimating answers

FRACTIONS

Fractions of Quantity

Convert between fractions, decimals & percentages (non Calc)

Convert between fractions, decimals & percentages (Calc)

PERCENTAGES

Converting to decimals

Simple fraction, decimal & percentage equivalents

Percentages of amount (non calc)

Percentages of amount (Part 2)

Increase by a percentage Decrease by a percentage

TIME & SPEED

Calculating and comparing time intervals

Converting between 12- & 24-hr clock

Converting between seconds, minutes & hours

DST calculations

RATIO & PROPORTION

Simplifying ratios

Divide a quantity in a given ratio

Direct proportion

AVERAGES & RANGE

Find the mean, median, mode and range from a list of numbers

UNDERSTANDING & USING MEASURES

Converting measurement_length, mass & capacity

Reading angles on a protractor (Part 1)

Reading angles on a protractor (Part 2)

Reading angles on a protractor Part 3

Draw angles with a protractor 1

Draw angles with a protractor (Part 2)

INTERPRETING GRAPHS, DATA COLLECTION & PIE CHARTS

Data Collection

Bar graphs

Composite & multiple bar graphs

Pie charts (interpreting)

Draw & interpret pie charts

Stem-and-leaf diagrams

Scatter Graphs

Using the line of best fit on a scatter graph

PROBABILITY

Probability as a fraction

Calculate predicted outcomes

Calculate experimental probabilities and make predictions

EXPRESSIONS & FORMULAE

ALGEBRAIC EXPRESSIONS

Algebraic expressions

Collecting like terms

Simplify expressions by multiplying terms

Expanding a single bracket

Expand two brackets and simplify (part 1)

Expand two brackets and simplify (part 2)

Factorising a single bracket

Factorise a single bracket (taking out a letter)

Factorise single bracket (taking out a letter & number)

FORMULAE & PATTERNS

Linear patterns-writing the formula (part 1)

Linear patterns-finding terms of a sequence (part 2)

Substitute a positive term into a formula

Substitute a negative term into a formula

GRADIENT OF A STRAIGHT LINE

Find the gradient

AREA & VOLUMES

Area of rectangles, triangles & parallelograms

Area of a trapezium

Area of composite shapes

Perimeter of composite shapes

Volume of cubes & cuboids

Surface area of cubes & cuboids

CIRCLES

Circumference

Area

ROTATIONAL SYMMETRY

Rotate an object around a given point

RELATIONSHIPS

STRAIGHT LINE GRAPHS

Exploring vertical & horizontal lines

Equation of vertical & horizontal lines

Drawing a straightline (using a table of values)

EQUATIONS AND FORMULAE

Solving one step equations

Solving two step equations

Solving equations with unknowns on both sides

Change the subject of a formula

Change the subject of a formula (harder)

PYTHAGORAS THEOREM

Know and understand Pythagoras' theorem

Find the length of the longest side (hypotenuse)

Find the length of a short side

Find the length of line segment (coordinates)

SCALE FACTORS & SIMILAR FIGURES

Enlarge an object by a positive scale factor

Identify similar shapes and show shapes are similar

USING ANGLE PROPERTIES

Find missing angles around a point on a straightline

Find missing angles in triangles

Find missing angles in quadrilaterals

F & Z angles (part 1)

F & Z angles (part 2)

Angles in a semi circle

Tangent & radius relationship-including finding missing angles

TRIGONOMETRY

Soh-Cah-Toa introduction

Use Toa (Tangent) to find the length of a side

Use Soh or Cah (sine or cosine) to find the length of a side

SCATTER GRAPHS

Scatter Graphs

Using the line of best fit on a scatter graph