

# Contents

These tasks and activities are organised according to the National Numeracy Strategy.

They do not comprise an exhaustive resource, but the tasks do offer fun and innovative activities to complement existing resources and programmes of study.



*Written and developed by Lesley Higgin*

## Numbers and the number system

Worksheet	Objectives addressed
Starter ideas	
Four-in-a-Line	Multiplying integers by multiples of 10
Decimal Multiplication and Division 1	Multiplying and dividing integers and decimals by 10, 100, 1000
Decimal Multiplication and Division 2	Multiplying and dividing integers and decimals by 10, 100, 1000
Supermarket Sweep	Introduction to rounding decimals to the nearest whole number.
Negative Number Walls	Adding and subtracting positive and negative numbers
Special Numbers	Recognise properties of numbers
Four Special Numbers	Recognise properties of numbers
Factors, Multiples and Primes	Recognise factors, multiples and prime numbers
Aliens	Recognise properties of numbers
Equivalent Fractions	Identify equivalent fractions
Fractions Snap	Identify equivalent fractions
Four Fractions	Simplifying Fractions, recognising equivalent fractions
Escape!	Understand mixed numbers and improper fractions
Percentages	Calculate simple percentages
The percentages Game	Calculate simple percentages
Dominoes	Recognise the equivalence of fractions, decimals and percentages
The Muddy Markbook	Recognise the equivalence of fractions and percentages, Calculate simple fractions and percentages of quantities (calculating a mean)
Ratio	Use ratio notation and divide a quantity into two parts in a given ratio
The Ratio Game	Reduce a Ratio to its simplest form

## Calculations

Worksheet	Objectives addressed
Starter Ideas	
Score a Dozen	Know and use the order of operations including brackets
Sums	Consolidate rapid recall of number facts, and practice quick mental addition
Make a Hundred	Consolidate rapid recall of number facts, and practice quick mental addition
Third Time Lucky	Consolidate rapid recall of number facts, and practice quick mental calculations
Five-in-a-Line	Consolidate rapid recall of number facts
Addition Number Walls	Practice quick mental addition and subtraction and use written methods to add and subtract
Ink Splodges	Use standard column procedures to add and subtract whole numbers
Multiplication Number Walls	Single and 2-digit multiplication and division
Decimal four-in-a-line	Mentally multiply and divide integers by single-digit decimals
Spend Spend Spend	Mental calculation and estimation techniques
Decimal Multiplication Walls	Mentally multiply and divide integers and decimals
Target Decimals	Consolidate mental methods of calculations with decimals
Decimal Addition Walls	Use mental and written methods to add and subtract single-digit and 2-digit decimals
The Café	Use mental and written methods to add and subtract integers, single-digit and 2-digit decimals
Decimal Sums	Practice quick mental decimal addition

## Algebra

Worksheet	Objectives addressed
Starter Ideas	
Family Photos	Use letter symbols to represent unknown variables Begin to simplify linear algebraic expressions
Name the Teacher	Use letter symbols to represent unknown variables Begin to simplify linear algebraic expressions
Cathy's Café	Use letter symbols to represent unknown variables Simplify linear algebraic expressions
Kev's Café	Use letter symbols to represent unknown variables
Algebra Walls	Use letter symbols to represent unknown variables
Lunch at Kev's Café	Simplify linear algebraic expressions by collecting like terms Begin to multiply a single term over a bracket
Algebra Snap	Use letter symbols to represent unknown variables Begin to simplify linear algebraic expressions
Think of a Number	Use letter symbols to represent unknown variables Simplify linear algebraic expressions Begin to multiply a single term over a bracket
Algebra Ink Splodges	Solve simple linear equations
Goodies Sweet Shop	Construct and Solve simple linear equations
Substitution Bingo	Substitute positive integers into simple linear expressions
Substitution 1	Substitute positive integers into simple linear expressions

**Algebra - continued**

Substitution 2	Substitute positive integers into expressions
The Substitution Game	Substitute positive integers into simple linear expressions
Detective Work	Generate and describe simple integer sequences
Jewellery Algebra	Find the $n$ th term
Hiring a Car	Understand functions and mappings and represent them algebraically Form and solve linear equations
Line of Four	Generate coordinate pairs that satisfy a simple rule

## Shape, Space and Measures

Worksheet	Objectives addressed
Starter Ideas	
The Polygons Game	Use correctly the vocabulary for shapes
Angles and Polygons Wordsearch	Use correctly the vocabulary for lines, angles and shapes
What am I?	Use correctly the vocabulary for shapes
Angle Tangle	Know the sum of angles at a point, on a straight line and in a triangle, and recognise vertically opposite angles
Angles in Triangles Game	Know the sum of angles in a triangle. Identify angle properties in triangles
Properties of Quadrilaterals	Identify angle, side and symmetry properties of quadrilaterals
Polygon Properties	Identify angle, side and symmetry properties of triangles and quadrilaterals
Cube Connections	Use 2-D representations to visualise 3-D shapes and deduce some of their properties Calculate surface area of cuboids
Prism Patterns	Use 2-D representations to visualise 3-D shapes and deduce some of their properties (finding the nth term)
Coordinates and Reflections	Use conventions and notation for 2-D coordinates in all four quadrants Reflect shapes in given mirror lines
Coordinates and Transformations	Use conventions and notation for 2-D coordinates in all four quadrants Reflect, rotate and translate shapes
Shop 'til you Drop	Reflect, rotate and translate shapes
Units Wordsearch	Know names and abbreviations of units of measurement (length, mass, capacity)

## Shape Space and Measures - continued

Make a Metre	Convert between metric units of length
Money Makes the World Go Round	Use metric units of length to measure and solve problems
Units of Time	Converting between units of time
Area Puzzle	Know and use the formula for the area of a rectangle
Another Area Puzzle	Know and use the formula for the area of a rectangle

## Handling Data

Worksheet	Objectives addressed
Starter Ideas	
Travel to School	Construct and interpret frequency tables and bar charts for grouped data and draw simple conclusions
How Old?	Interpret bar charts and draw simple conclusions
The Maths Test	Draw bar charts Calculating mean, mode, median and range and using this data to compare distributions
Using Averages	Calculating mean, mode and median and deciding on the most appropriate
Health Clubs	Interpreting pie charts
The Probability Game	Calculating simple probabilities (ordering fractions)
The Dice Game	Calculating simple probabilities (recognising the properties of numbers)
Alphabetical Probabilities	Collect data and record it in a frequency table. Estimate probabilities based on this data
Dice Experiment	Collect data and record it in a frequency table. Estimate probabilities based on this data Compare experimental and theoretical probabilities