Year 4 Maths
Areas of Focused Learning and Associated Vocabulary

Counting, partitioning and calculating

- Addition and subtraction
- Mental methods: pairs of 2-digit numbers
- Written methods: 2 and 3-digit numbers, £.p
- Ordering, partitioning and rounding 4-digit numbers; positive and negative numbers
- Solving one- and two-step word problems involving numbers, money or measures
- Explaining methods and reasoning, orally and on paper, using words, diagrams and symbols
- Multiplication and division
- Tables to 10 × 10; multiplying by 10 or 100; 2-digit doubles
- Written methods: TU × U, TU + U; rounding remainders
- Using a calculator

problem, solution, calculate, calculation, equation, operation, answer, method, explain, predict, reason, reasoning, pattern, relationship, rule, sequence

place value, partition, thousands, digit, four-digit number, decimal point, decimal place, tenths, hundredths

positive, negative, above/below zero, compare, order, greater than (>), less than (<), equal to (=), round, estimate, approximately

add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder

calculator, display, key, enter, clear, constant

pound (£), penny/pence (p), units of measurement and abbreviations, degrees Celsius (°C)

Securing number facts, understanding shape

- Sums and differences of multiples of 10, 100, 1000
- Tables to 10 × 10; multiples
- Doubles of 2-digit numbers and multiples of 10, 100; corresponding halves
- Solving one- and two-step word problems involving numbers, money or measures
- Patterns, relationships and properties of numbers and shapes
- Explaining methods and reasoning, orally and on paper, using words diagrams and symbols
- Properties of polygons, including line symmetry
- Visualising 3-D and 2-D shapes
- Nets of common solids
- Using a calculator

problem, solution, calculator, calculate, calculation, equation, operation, inverse, answer, method, explain, predict, reason, reasoning, pattern, relationship, rule, sequence, sort, classify, property

add, subtract, multiply, divide, sum, total, difference, plus, minus, product, quotient, remainder, double, halve, factor, multiple, divisor, round

3-D, three-dimensional, 2-D, two-dimensional, net, construct, regular, irregular, concave, convex, symmetrical, line of symmetry, vertex, vertices, face, edge, polygon, equilateral triangle, isosceles triangle, quadrilateral, rectangle, square, oblong, hexagon, heptagon, octagon

Handling data and measures

- Readings from scales
- Comparing impact of different scales
- Constructing tables, diagrams, tally charts, pictograms and bar charts
- Collecting, organising, presenting and interpreting data to answer related questions
- Identifying further questions
- Explaining reasoning using text, diagrams and graphs
- Using standard metric units to estimate, measure and record measurements
- Using ICT

problem, solution, calculate, calculation, method, explain, reasoning, reason, predict, pattern, relationship, classify, represent, interpret

data, information, survey, questionnaire, graph, chart, table, diagram, horizontal axis, vertical axis, axes, label, title, scale, interval, pictogram, bar chart, tally chart, greatest/least value

metric unit, standard unit, millimetre (mm), centimetre (cm), metre (m), kilogram (kg), gram (g), litre (l), millilitre (ml)

Calculating, measuring and understanding shape

- Addition and subtraction
- Mental methods: pairs of 2-digit numbers
- Written methods: 2- and 3-digit numbers, £.p
- Standard metric units
- Reading from partly numbered scales
- am, pm, 12-hour clock and time intervals
- Solving one- and two-step word problems involving numbers, money, measures of time
- Area and perimeters of rectangles
- Angles in degrees; compass points
- Horizontal and vertical; position of a grid
- Multiplication and division
- Tables to 10 × 10; multiplying by 10 or 100; 2-digit doubles
- Written methods: multiplying and dividing TU by U; rounding remainders
- Using a calculator

Problem, solution, answer, method, explain, predict, reason, reasoning, pattern, relationship,

calculation, equation, decimal, decimal point, decimal place, add, subtract, multiply, divide, order, compare, sum, total, difference, plus, minus, product, remainder, calculator, pound (£), penny/pence (p)

measure, estimate, metric unit, standard unit, length, distance, perimeter, area, mass, weight, capacity, ruler, measuring tape, balance, scales, measuring cylinder/jug, angle, right angle, set-square, units of measurement and abbreviations: kilometre (km), metre (m), centimetre (cm), millimetre (mm), kilogram (kg), gram (g), litre (l), millilitre (ml), square centimetre (cm^2), degree (°)

time, am, pm, digital, analogue, timetable, arrive, depart, hour (h), minute (min), second (s),
position, direction, north-east (NE), north-west (NW), south-west (SW), south-east (SE), clockwise, anticlockwise, horizontal, vertical, grid

Securing number facts, relationships and calculating

- Equivalence of fractions
- Mixed numbers
- Fractions of shapes and quantities
- Tables 10 × 10; multiples
- Written methods: TU × U; TU ÷ U; rounding remainders
- Solving one- and two-step word problems involving numbers, money or measures
- Representing a problem
- Interpreting the solution
- Interpreting the language of ratio and proportion
- Using a calculator

problem, solution, calculator, calculate, calculation, equation, operation, symbol, inverse, answer, method, explain, predict, reason, reasoning, pattern, relationship

add, subtract, multiply, multiplied by, divide, divided by, sum, total, difference, plus, minus, product, quotient, remainder, multiple, factor, divisor, divisible by

fraction, unit fraction, mixed number, numerator, denominator, equivalent

proportion, in every, for every, to every

Fun Activities to do at home

Number Games

- You need about 20 coins or similar.
- Take turns. Roll two dice to make a two-digit number, e.g. if you roll a 4 and 1, this is 41 and 14.
- Add these two numbers together in your head. If you are right, you win a coin. Talk about the strategy used to add up the numbers.
- The first person to get 10 coins wins.
- Try using larger numbers and move onto subtraction.

Measuring

- Use a tape measure that shows centimetres.
- Predict the length of different objects e.g. the sofa, table.
- Record the measurements in centimetres. Convert to metres and centimetres. Convert to metres only. E.g. the bath is 165cm long, you could say it is 1m 65cm and 1.65m
- Write all the measurements in order.

Multiplication dominoes

- Put some dominoes face down.
- Shuffle them.
- Each person chooses a domino.
- Multiply the two numbers.
- The biggest answer keeps the two dominoes.
- The winner is the person who has the most dominoes.

Looking around

- Choose a room in your home.
- Challenge your child to spot 20 right angles in it.

Everyday Games and Ideas

- Skipping – count the skips, count in 3s, 4s
- Ludo
- Beetle
- Dominoes
- Card games
- Times Table Bingo
- Heads and tails – keep a tally
- Connect 4
- I spy a number + 10. e.g. I spy the number 7 + 10
- Number jigsaws
- Dot to dot with numbers
- Yahtzee
- Happy Families
- Sharing out toys, sweets
- Using telephone numbers for addition, place value, number bonds etc
- Using pizza for simple fractions – whole, half and so on
- Cars on a journey e.g. how many red cars?
- Cooking and baking
- Shopping e.g. looking at prices, reading labels to discuss Capacity, weight and shape, value of coins – using money.

Progression in Calculation Methods

This document explains the different methods and strategies we use for written methods of calculation. Please use the links on our website.

Useful Websites:

- www.counton.org has lots of ideas and games to play.
- www.learn.co.uk help for children with maths.
- www.bbc.co.uk/schools games to play.
- Google 'Coxhoe Primary School Maths' and this leads to lots of games children can play and links to other web sites.

Last but not least…

- It is important that you talk and listen to your child about their work in maths. It will help your child if they have to explain and show to you.
- Share a maths activity with your child and discuss ideas with them.
- Be positive about maths, even if you do not feel confident about it yourself.
- If your child is having any problems with maths do let us know by either writing a note or popping in to see us.
- Maths is all around us – use everyday situations to help develop your child's vocabulary.
- If you need further information just ask.
- Play games and have fun!