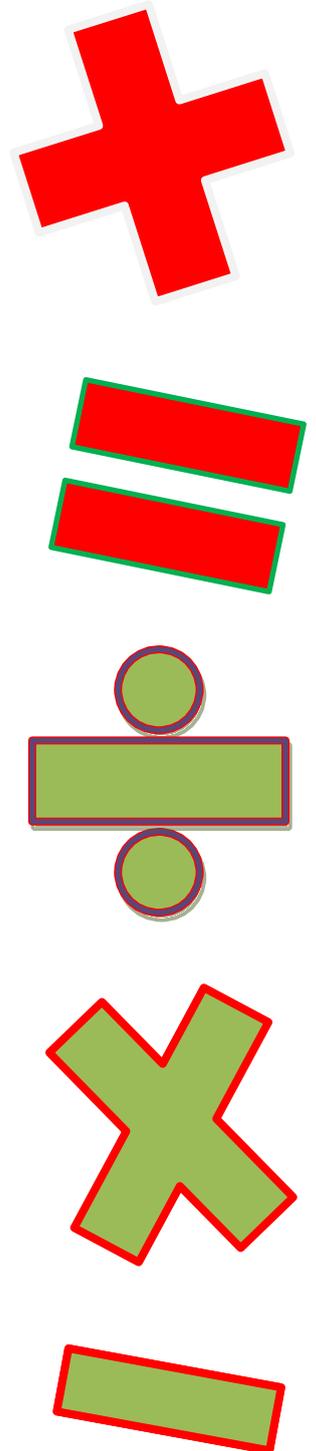


Mathematical Vocabulary

National
Curriculum
2014



Purpose of Study – NC2014

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims

The National Curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Who is this book for?

The purpose of this booklet is to identify the key mathematical words and phrases that children need to understand and use or apply if they are to make good progress in their mathematics. It is designed to support the 2014 National Curriculum for Mathematics at Key Stages 1 and 2.

This booklet will be relevant and useful for all the following at the Federation of Yatton Schools:

- Class Teacher
- Teaching Assistants/Learning Support Assistants
- SENDCo
- Parents
- Pupils
- Volunteers
- Supply Staff

Why do we need this booklet?

The Federation of Yatton Schools believe that all children should be challenged in their learning at the right pitch and pace with clear progression as they move through the academy.

We wanted to revisit the principles and best practice from the National Numeracy Strategy from 1999 that clearly set out a bank of key vocabulary that should be taught and explored and bring this in line with the National Curriculum 2014 to meet the demands of the latest curriculum.

There are three main ways in which children's failure to understand mathematical vocabulary may show itself:

- children do not respond to questions in lessons
- they cannot do a task they are set
- they do poorly in tests.

Their lack of response may be because:

- they do not understand the spoken or written instructions,
 - such as 'draw a line between...', 'ring...' or 'find two different ways to...'
- they are not familiar with the mathematical vocabulary,
 - that is, words such as 'difference', 'subtract', 'divide' or 'product'

- they may be confused about mathematical terms,
 - such as 'odd' or 'table', which have different meanings in everyday English
- they may be confused about other words,
 - like 'area' or 'divide', which are used in everyday English and have similar, though more precise, meanings in mathematics

There are, then, practical reasons why children need to acquire appropriate vocabulary so that they can participate in the activities, lessons and tests that are part of classroom life. There is, however, an even more important reason: mathematical language is crucial to children's development of thinking. If children don't have the vocabulary to talk about division, or perimeters, or numerical difference, they cannot make progress in understanding these areas of mathematical knowledge.

How is the book organised and how can it be used?

To help you introduce appropriate mathematical language at the right time in your planning and teaching sequences, this book provides four pages of vocabulary checklists for each year group. These should be referred to as a core list of essential words and phrases. The booklet also allows you to track backwards to support less able pupils and forwards to support more able pupils with good differentiated learning.

The checklists are not intended to be exhaustive; you can add more words if you would like to do so.

The pages for each year cover mathematical vocabulary relating to the National Curriculum for Mathematics 2014 which is organised according to its four strands:

- Number
- Measurement
- Geometry
- Statistics

Plus additionally for Year 6:

- Ratio & Proportion
- Algebra

Using and Applying Mathematics is integrated throughout.

The words listed for each year include vocabulary from the previous years. Some words may appear under different strands in different years, as their meaning is expanded or made more specific.

Class teachers can use these lists to identify the vocabulary relating to a series of lessons they are planning. They can make provision for the introduction of new vocabulary and the consolidation of familiar terms. They can ask support staff and parents to emphasise this vocabulary for an appropriate period.

Spoken Language

The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

There are clear expectations set out in the National Curriculum in relation to the use of the vocabulary, its link to spelling and standards to be met by the end of each stage of learning (Year 2, Year 4 and Year 6).

How do children develop their understanding of mathematical vocabulary?

Teachers often use informal, everyday language in mathematics lessons before or alongside technical mathematical vocabulary. Although this can help children to grasp the meaning of different words and phrases, you will find that a structured approach to the teaching and learning of vocabulary is essential if children are to move on and begin using the correct mathematical terminology as soon as possible.

Some children may start at the Federation of Yatton Schools with a good understanding of mathematical words when used informally, either in English or their home language. Find out the extent of their mathematical vocabulary and the depth of their understanding, and build on this.

You need to plan the introduction of new words in a suitable context, for example, with relevant real objects, mathematical apparatus, pictures and/or diagrams. Explain their meanings carefully and rehearse them several times. Referring to new words only once will do little to promote learning. Encourage their use in context in oral sessions, particularly through your questioning. You can help sort out any ambiguities or misconceptions your pupils may have through a range of open and closed questions.

Use every opportunity to draw attention to new words or symbols with the whole class, in a group or when talking to individual pupils. The final stages are learning to read and write new mathematical vocabulary in a range of circumstances, ultimately spelling the relevant words correctly.

Regular, planned opportunities for development

It is not just younger children who need regular, planned opportunities to develop their mathematical vocabulary. All children throughout Key Stages 1 and 2 needs to experience a cycle of oral work, reading and writing as outlined below.

Oral work based on practical work

- so that they have visual images and tactile experience of what mathematical words mean in a variety of contexts

Other forms of oral work

So that they have opportunities to:

- listen to adults and other children using the words correctly
- acquire confidence and fluency in speaking, using complete sentences that include the new words and phrases, sometimes in chorus with others and sometimes individually
- describe, define and compare mathematical properties, positions, methods, patterns, relationships, rules
- discuss ways of tackling a problem, collecting data, organising their work
- hypothesise or make predictions about possible results
- present, explain and justify their methods, results, solutions or reasoning, to the whole class or to a group or partner
- generalise, or describe examples that match a general statement

Reading aloud and silently, sometimes as a whole class and sometimes individually for example, reading:

- numbers, signs and symbols, expressions and equations in blackboard presentations
- instructions and explanations in workbooks, textbooks, CD-ROMs
- texts with mathematical references in fiction and non-fiction books and books of rhymes during the literacy hour as well as mathematics lessons
- labels and captions on classroom displays, in diagrams, graphs, charts and tables
- definitions in illustrated dictionaries, including dictionaries that they themselves have made, in order to discover synonyms, origins of words, words that start with the same group of letters (such as triangle, tricycle, triplet, trisect)

Writing and recording in a variety of ways, progressing from words, phrases and short sentences to paragraphs and longer pieces of writing, for example:

- writing prose in order to describe, compare, predict, interpret, explain, justify...
- writing formulae, first using words, then symbols
- sketching and labelling diagrams in order to clarify their meaning
- drawing and labelling graphs, charts or tables, and interpreting and making predictions from the data in them, in mathematics and other subjects

The Skill of Questioning

Children cannot learn the meanings of words in isolation. The use of questions is crucial in helping them to understand mathematical ideas and use mathematical terms correctly.

It is important to ask questions in different ways so that children who do not understand the first time may pick up the meaning subsequently. Pupils for whom English is an additional language benefit and so will others who are not always familiar with the vocabulary and grammatical structures used in school.

It is easy to use certain types of questions — those that ask the listener to recall and apply facts — more often than those that require a higher level of thinking. If you can use the full range of question types you will find that children begin to give more complex answers in which they explain their thinking.

Types of Question

Recalling Facts

- What is 3 add 7?
- How many days are there in a week?
- How many centimetres are there in a metre?
- Is 31 a prime number?

Applying Facts

- Tell me two numbers that have a difference of 12.
- What unit would you choose to measure the width of the table?
- What are the factors of 42?

Hypothesising or Predicting

- Estimate the number of marbles in this jar.
- If we did our survey again on Friday, how likely is it that our graph would be the same?
- Roughly, what is 51 times 47?
- How many rectangles in the next diagram?
- And the next?

Designing and Comparing Procedures

- How might we count this pile of sticks?
- How could you subtract 37 from 82?
- How could we test a number to see if it is divisible by 6?
- How could we find the 20th triangular number?
- Are there other ways of doing it?

Interpreting Results

- So what does that tell us about numbers that end in 5 or 0?
- What does the graph tell us about the most common shoe size?
- So what can we say about the sum of the angles in a triangle?

Applying Reasoning

- The seven coins in my purse total 23p. What could they be?
- In how many different ways can four children sit at a round table?
- Why is the sum of two odd numbers always even?

On this and the following page are further examples of questions to help you promote good dialogue and interaction in mathematics lessons.

Below are examples of closed questions with just one correct answer and open questions which have a number of different correct answers. Open questions give more children a chance to respond and they often provide a greater challenge for higher attaining pupils, who can be asked to think of alternative answers and, in suitable cases, to count all the different possibilities.

Closed Questions

Count these cubes.

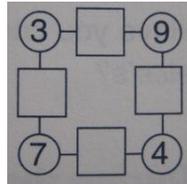
A chew costs 3p. A lolly costs 7p.
What do they cost altogether?

What is $6 - 4$?

What is $2 + 6 - 3$?

Is 16 an even number?

Write a number in each box so that it equals the sum of the two numbers on each side of it.



Copy and complete this addition table:

+	4	7
2		
6		

What are four threes?

What is 7×6 ?

How many centimetres are there in a metre?

Continue the sequence 1, 2, 4...

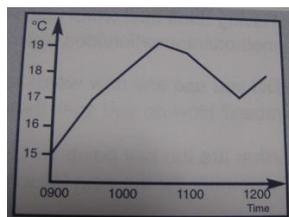
What is one fifth add four fifths?

What is 10% of 300?

What is this shape called?



This graph shows the room temperature on 19th May.
What was the temperature at 10.00am?



Open Questions

How could we count these cubes?

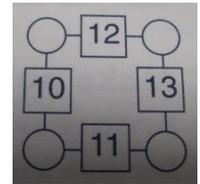
A chew and a lolly cost 10p altogether.
What could each sweet cost?

Tell me two numbers with a difference of 2.

What numbers can you make with 2, 3 and 6?

What even numbers lie between 10 and 20?

Write a number in each circle so that the number in each box equals the sum of the two numbers on each side. Find different ways of doing it.



Find different ways of completing this table:

	3	4
	7	

Tell me two numbers with a product of 12.

If $7 \times 6 = 42$, what else can you work out?

Tell me two lengths that together make one metre.

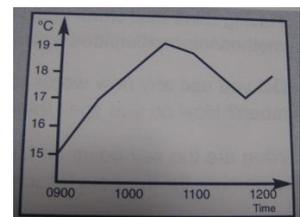
Find ways of continuing this sequence: 1, 2, 4...

Write eight different ways of adding two numbers to make one.

Find ways of completing: ___% of ___ = 30

Sketch some different triangles.

This graph shows the room temperature on 19th May.
Can you explain it?



Mathematical Vocabulary Checklists

Year 1 to Year 6

Year 1

Number & Place Value

number
zero, one, two, three... to twenty and beyond
zero, ten, twenty... one hundred
none
how many...?
count, count (up) to
count on (from, to)
count back (from, to)
count in ones, twos... tens...
more, less, many, few
odd, even
every other
how many times?
pair
its, ones
tens
exchange
digit
'teens' number
the same number as, as many as
equal to

Of two objects/amounts:

- greater, more, larger, bigger
- less, fewer, smaller

Of three or more objects/amounts:

- greatest, most, biggest, largest
- least, fewest, smallest
- one more, ten more
- one less, ten less
- compare
- order
- size
- first, second, third... tenth, eleventh... twentieth
- last, last but one
- before, after
- next
- between, half-way between

Number – Addition & Subtraction

+, add, more, plus
make, sum, total
altogether, =, equals
score
double, near double
one more, two more... ten more...
how many more to make...?
how many more is... than...?
how much more is...?
-, subtract, take (away)
minus, leave
how many are left/
how many have gone?
one less, two less, ten less...
how many fewer is... than...?
how much less is...?
difference between
half, halve
number bonds

Number – Multiplication & Division

count in 2, 5, 10
array
=, equals, sign
is the same as
grouping, sharing
doubling
fraction

Estimating

guess how many
estimate
nearly, roughly, close to
about the same as
just over, just under
too many, too few,
enough, not enough

Solving Problems

put together
add
altogether
total
take away
distance between, difference between
more than, less than
puzzle
answer
right, wrong
what could we try next?
how did you work it out?
count out, share out, left, left over
number sentence
sign, operation

Number – Fractions

half, $\frac{1}{2}$
quarter, $\frac{1}{4}$
half a length, quantity, set of objects, shape
two equal parts
four equal parts
whole

Measurement – General

measure
size
compare
guess, estimate
enough, not enough
too much, too little, too many, too few
nearly, roughly
close to, about the same as
just over, just under

Measurement - Capacity

full
half full
empty
holds
container

Measurement - Time

time
days of the week: Monday, Tuesday...
seasons: spring, summer, autumn, winter
day, week, month, year
weekend, birthday, holiday
morning, afternoon, evening
night, midnight
bedtime, dinnertime, playtime
today, yesterday, tomorrow
before, after
next, last
now, soon, early, late
quick, quicker, quickest, quickly
fast, faster, fastest
slow, slower, slowest, slowly
old, older, oldest
new, newer, newest
takes longer, takes less time
hours, minutes, seconds
o'clock, half past
clock, watch, hands
how long ago?
how long will it be to...?
how long will it take to...?
how often?
always, never, often, sometimes, usually
once, twice

Position, Direction & Movement

Position
Over, under, underneath
Above, below
Top, middle, bottom, side
On, in
Outside, inside
Around
In front, behind
Front, back
Before, after
Beside, next to
Opposite
Apart
Between
Middle, edge
Centre
Corner
Direction
Journey
Left, right
Up, down
Forwards, backwards, sideways
Across
Close, far, near
Along
Through
To, from, towards, away from
Movement
Slide
Roll
Turn, whole turn, half turn, quarter turn, three quarter turn
Stretch, bend
Clockwise

Measurement – Shape & Space

Shape, pattern
Flat
Curved, straight
Round
Hollow, solid
Corner
Point, pointed
Face, side, edge, end
Sort
Make, build, draw

3D Shapes

Cube
Cuboid
Pyramid
Sphere
Cone
Cylinder

2D Shapes

circle
triangle
square
rectangle
star

Measurement - Length

Length, width, height, depth
Long, short, tall
High, low
Wide, narrow
Deep, shallow
Thick, thin
Longer, shorter, taller, higher... and so on
Longest, shortest, tallest, highest... and so on
Far, near, close

Measurements - Mass

Weigh, weighs, balances
Heavy/light, heavier/lighter, heaviest/lightest
Balance, scales, weight

Patterns & Symmetry

Size
Bigger, larger, smaller
Symmetrical
Pattern
Repeating patter
Match

Instructions

Listen
Join in
Say
Think
Imagine
Remember
Start from
Start with
Start at
Look at
Point to
Show me
Put, place
Fit
Arrange, rearrange
Change, change over
Split, separate
Carry on, continue
Repeat
What comes next?
Find
Choose
Collect
Use
Make
Build
Tell me
Describe
Pick out
Talk about
Explain
Show me
Read
Write
Record
Trace
Copy
Complete
Finish, end
Fill in
Shade
Colour
Tick, cross
Draw
Draw a line between
Join (up)
Ring
Arrow
Cost
Count
Work out
Answer
check

General

Same number /s
Different number / s
Missing number /s
Number facts
Number line, number track
Number square
Number cards
Abacus
Counters, cubes, blocks, rods
Die, dice
Dominoes
Pegs, peg board
Same way, different way
Best way, another way
In order, in a different order
Not
All, every, each

Year 2

Counting, Properties of Numbers and Number Sequences

Number
zero, one, two, three... to twenty and beyond
zero, ten, twenty... one hundred
zero, one hundred, two hundred.....one thousand
none
how many...?
count, count (up) to
count on (from, to)
count back (from, to)
count in ones, twos, threes, fours, fives.....
count in tens
more, less, many, few
tally
odd, even
every other
how many times?
Multiple of
Sequence
Continue
Predict
Pattern, pair, rule

Estimating

Guess how many, estimate
Nearly, roughly, close to
About the same as
Just over, just under
Exact, exactly
Too many, too few, enough, not enough
Round, nearest, round to the nearest ten

Calculations - Addition & Subtraction

+, add, addition, more, plus
Make, sum, total
Altogether
Score
Double, near double
One more, two more..... ten more..... one hundred more
How many more to make?
How many more is ... than ?
How much more is?
-, subtract, subtraction, take (away), minus
Leave, how many are left / left over?
One less, two less..... ten less..... One hundred less
How many fewer is Than?
How much less is?
Difference between
Half, halve
=, equals, sign, is the same as
Tens boundary

Place, Value and Ordering

Units, ones
Tens, hundreds
Digit
One-, two- or three-digit number
'teens' number
Place, place value, place holder
Stands for, represents
Exchange
The same number as, as many as
Equal to

Of two objects/amounts:

- >, Greater, more, larger, bigger,
- <, less, fewer, smaller

Of three of more objects/amounts:

- Greatest, most, biggest, largest
- Least, fewest, smallest
- One more, ten more
- One less, ten less
- Compare
- Order
- Size
- First, second, third.....tenth.....twentieth
- Twenty-first, twenty-second.....
- Last, last but one
- Before, after
- Next
- Between, half-way between
- Above, below

Fractions

Part, equal parts
Fraction
One whole
One half, two halves
One quarter, two.... Three.....four quarter
One third
Non-unit fraction

Calculations – Multiplication & Division

Lots of, groups of
Multiplication / division facts
X, times, multiply, multiplied by
Multiple of
Once. Twice, three times ten times
Times as (big, long, wide..... and so on)
Repeated addition
Array
Row, column
Double, halve
Share, share equally
One each, two each, three each
Group in pairs, threes Tens
Equal groups of
÷, divide, divided by, divided into
Left, left over

Solving Problems – Making Decisions and Reasoning

Pattern, puzzle
Calculate, calculation
Mental calculation
Jotting
Answer
Right, correct, wrong
What could we try next?
How did you work it out?
Number sentence
Sign, operation, symbol

Organising & Using Data

Count, tally, sort vote
Graph, block graph, pictogram
Represent
Group, set
Same, different
List, table
Label, title
Most popular, most common
Least popular, least common
Totalling
Simple ratios 2,5,10

Measurement - Mass

Weigh, weighs, balances
Heavy/light, heavier/lighter, heaviest/lightest
Kilogram (kg), half-kilogram, gram (g)
Balance, scales, weight
Scales

Measurement - Time

Time
Days of the week: Monday, Tuesday.....
Months of the year: January, February, March.....
Seasons: spring, summer, autumn, winter
Day, week, fortnight, month, year
Weekend, birthday, holiday
Morning, afternoon, evening, night, midnight
Bedtime, dinnertime, playtime
Today, yesterday, tomorrow
Before, after
Next, last
Now, soon, early, late
Quick, quicker, quickest, quickly
Fast, faster, slowest, slowly
Old, older, oldest
New, newer, newest
Takes longer, takes less time
How long ago? How long will it be to....?
How long will it take to.....?
Hour, minute, second
O'clock, half past, quarter to, quarter past
Clock, watch, hands
Digital/analogue clock/watch, timer
How often?
Always, never, often, sometimes, usually
Once, twice

Money

Coin
Penny, pence (p), pound (£)
Price, cost
Buy, bought, sell, sold
Spend, spent
Pay
Change
Cheap, costs less, cheaper
How much....? How many.....?
total

Measurement - General

Measure
Size
Compare
Measuring scale
Guess, estimate
Enough, not enough
Too much, too little
Too many, too few
Nearly, roughly, about, close to, about the same as
Just over, just under
Temperature (°c)
Thermometer

Measurement - Length

Length, width, height, depth
Long, short, tall, high, low
Wide, narrow, deep, shallow, thick, thin
Longer, shorter, taller, higher..... and so on
Longest, shortest, tallest, highest And so on
Far, further, furthest, near, close,
Metre (m), centimetre (cm)
Ruler, metre stick, tape measure
Half as high, twice as wide

Measurement - Capacity

Full, half full
Empty
Holds, contains
Litre (l), half-litre, millilitre (ml)
Container
Volume

Measurement - Shape & Space

Shape, pattern
Flat, curved, straight
Round
Hollow, solid
Corner
Point, pointed
Face, side, edge, end, vertices
Sort
Make, build, draw
Surface
Quadrilateral, polygon,

3D Shapes

Cube
Cuboid
Pyramid
Sphere
Cone
Cylinder
Prism

Measurements – Patterns & Symmetry

Size
Bigger, larger, smaller
Symmetrical
Line of symmetry
Fold
Match
Mirror line, reflection
Pattern, repeating pattern

Instructions

Listen
Join in
Say
Recite
Think
Imagine
Remember
Start from
Start with
Start at
Look at
Point to
Show me
Put, place
Fit
Arrange, rearrange

2D Shapes

Circle, circular
Triangle, triangular
Square
Rectangle, rectangular
Star
Pentagon
Hexagon
octagon

Position, Direction & Movement

Position
Direction
Over, under, underneath
Above, below
Top, bottom, side
On, in
Outside, inside
Around
In front, behind
Front, back
Before, after
Beside, next to
Opposite
Apart
Between
Middle, edge
Centre
Corner
Direction
Journey, route
Left, right
Up, down
Higher, lower
Forwards, backwards, sideways
Across
Close, far, near
Along
Through
To, from, towards, away from
Clockwise, anti-clockwise
Movement
Slide
Roll
Whole turn, half turn, quarter turn, three-quarter turn
Right angle
Straight line
Stretch, bend
Rotation

General

Same, different
Missing number/s
Number facts
Number pairs
Number bonds
Number line, number track
Number square, hundred square
Number cards
Number grid
Abacus
Counters, cubes, blocks, rods
Die, dice
Dominoes
Pegs, peg boards
Geo-strips
Same way, different way

Change, change over
Split
Separate
Carry on, continue
Repeat
What comes next?
Predict
Describe the pattern
Describe the rule
Find, find all, find different
Investigate
Choose
Decide
Collect
Use make build
Tell me
Describe
Name Pick
out
Discuss
Talk about
Explain
Explain your method
explain how you got your answer
give an example of
show how you
read
write
record
write in figures
present
represent
trace
copy
complete
finish, end
fill in
shade, colour
label
tick, cross
draw
draw a line between
join (up)
ring arrow
cost, count, tally
calculate
work out
solve
answer
check
recognise
combine
order
interpret
collate

Best way, another way
In order, in a different order
Not
All, every, each
Partition
Commutative
Equivalence

Year 3

Counting, Properties of Numbers & Number Sequences

Number
zero, one, two, three... to twenty and beyond
zero, ten, twenty... one hundred
zero, one hundred, two hundred.....one thousand
none
how many...?
count, count (up) to
count on (from, to)
count back (from, to)
count in ones, twos, threes, fours, fives.....
count in tens, hundreds
count in multiples of 4, 8, 50, 100
more, less, many, few
tally
odd, even
every other
how many times?
Multiple of
Sequence
Continue
Predict
Pattern, pair, rule
Relationship
Numerals

Estimating

Guess how many, estimate
Nearly, roughly, close to
Approximate, approximately
About the same as
Just over, just under
Exact, exactly
Too many, too few, enough, not enough
Round (up or down)
nearest, round to the nearest ten

Calculations – Addition & Subtraction

+, add, addition, more, plus
Make, sum, total
Altogether
Score
Double, near double
One more, two more..... ten more..... one hundred more
How many more to make?
How many more is ... than ?
How much more is?
Three-digit number and ones, tens, hundreds
-, subtract, subtraction, take (away), minus
Leave, how many are left / left over?
One less, two less..... ten less..... One hundred less
How many fewer is Than?
How much less is?
Difference between
Half, halve
=, equals, sign, is the same as
Tens boundary, hundreds boundary
Columnar addition, subtraction

Place, Value & Ordering

Units, ones
Tens, hundreds
Digit
One-, two- or three-digit number
'teens' number
Place, place value
Stands for, represents
Exchange
The same number as, as many as
Equal to

Of two objects/amounts:

- >, Greater, more, larger, bigger,
- <, less, fewer, smaller

Of three of more objects/amounts:

- Greatest, most, biggest, largest
- Least, fewest, smallest
- One more, ten more, one hundred more
- One less, ten less, one hundred less
- Compare
- Order
- Size
- First, second, third.....tenth.....twentieth
- Twenty-first, twenty-second.....
- Last, last but one
- Before, after
- Next
- Between, half-way between
- Above, below

Fractions

Part, equal parts
Fraction
One whole
One half, two halves
One quarter, two.... Three.....four quarter
One third, two thirds, three thirds
One tenth
Unit, non-unit fractions
Denominator

Calculations – Multiplication & Division

Lots of, groups of
X, times, multiply, multiplication, multiplied by
Multiple of, product
Once, Twice, three times ten times
Times as (big, long, wide..... and so on)
Repeated addition
Array
Row, column
Double, halve
Share, share equally
One each, two each, three each
Group in pairs, threes Tens
Equal groups of
÷, divide, division, divided by, divided into
Left, left over, remainder
Positive integer scaling problems

Inverse operations

Partitioning

Solving Problems – Making Decisions & Reasoning

Pattern, puzzle

Calculate, calculation

Mental calculation

Method

Jotting

Answer

Right, correct, wrong

What could we try next?

How did you work it out?

Number sentence

Sign, operation, symbol, equation

Handling Data

Count, tally, sort, vote

Graph, block graph, pictogram

Represent

Group set

List, chart, bar chart

Table. Frequency table

Carroll diagram, venn diagram

Label, title, axis, axes

Diagram

Most popular, most common

Least popular, least common

How many more.....? How many fewer

Measurement - Length

Length, width, height, depth

Long, short, tall, high, low

Wide, narrow, deep, shallow, thick, thin

Longer, shorter, taller, higher..... and so on

Longest, shortest, tallest, highest And so on

Far, further, furthest, near, close,

Distance apart/between, distance to...../from.....

Kilometre (km), Metre (m), centimetre (cm) millimetre (mm), mile

Ruler, metre stick, tape measure

Measurements - Capacity

Capacity, volume

Full, half full

Empty

Holds, contains

Litre (l), half-litre, millilitre (ml)

container

Money

Money

Coin, note

Penny, pence, pound (£)

Price, cost

But, bought, sell, sold

Spend, spent

Pay

Change

Dear, costs more, more/most expensive

Cheap, costs less, cheaper, less/least expensive

How much.....? How many.....?

Total, amount

Value, worth

Measurement - General

Measure

Size

Compare

Measuring scale, division

Guess, estimate

Enough, not enough

Too much, too little

Too many, too few

Nearly, roughly, about, close to, about the same as, approximately

Just over, just under

Measurements – Mass

Weigh, weighs, balances

Heavy / light, heavier / lighter, heaviest / lightest

Kilogram (kg), half kilogram, gram (g)

Balance, scales, weight

Measurements - Time

Time

Days of the week: Monday, Tuesday.....

Months of the year: January, February, March.....

Seasons: spring, summer, autumn, winter

Day, week, fortnight, month, year, leap year

Weekend, birthday, holiday

Calendar, date

Morning, afternoon, evening, night, noon, midnight

Am, pm

Bedtime, dinnertime, playtime

Today, yesterday, tomorrow

Before, after

Next, last

Now, soon, early, late, earliest, latest

Quick, quicker, quickest, quickly

Fast, faster, fastest

Slow, slower, slowest, slowly

Old, older, oldest

New, newer, newest

Takes longer, takes less time

How long ago? How long will it be to....?

How long will it take to.....?

Hour, minute, second

O'clock, half past, quarter to, quarter past

Clock, watch, hands

Measurements – Shape & Space

Shape, pattern
Flat, curved, straight
Round
Hollow, solid
Corner
Point, pointed
Face, side, edge, end
Sort
Make, build, draw
Surface
Right-angled
Vertex, vertices
Layer, diagram
Perimeter
Turn
Perpendicular, parallel
Acute, obtuse
Polygon, polyhedra

3D Shapes

Cube
Cuboid
Pyramid
Sphere, hemi - sphere
Cone
Cylinder
Prism

2D Shapes

Circle, circular, semi - circle
Triangle, triangular
Square
Rectangle, rectangular
Star
Pentagon, pentagonal
Hexagon, hexagonal
Octagon, octagonal
Quadrilateral

Position, Direction & Movement

Position
Over, under, underneath
Above, below
Top, bottom, side
On, in
Outside, inside
Around
In front, behind
Front, back
Before, after
Beside, next to
Opposite
Apart
Between
Middle, edge
Centre
Corner
Direction
Journey, route, map, plan
Left, right

Digital/analogue clock/watch, timer
Roman numerals
How often?
Always, never, often, sometimes, usually
Once, twice

Measurement – Patterns & Symmetry

Size
Bigger, larger, smaller
Symmetrical
Line of symmetry
Fold
Match
Mirror line, reflection
Pattern, repeating pattern

Instructions

Listen
Join in
Say
Recite
Think
Imagine
Remember
Start from
Start with
Start at
Look at
Point to
Show me
Put, place
Fit
Arrange, rearrange
Change, change over
Split
Separate
Carry on, continue

Up, down
Higher, lower
Forwards, backwards, sideways
Across
Close, far, near
Along
Through
To, from, towards, away from
Ascend, descend
Grid
Row, column
Clockwise, anti-clockwise
Compass point
North, south, east, west (N, S, E, W)
Horizontal, vertical
diagonal
Movement
Slide
Roll
Whole turn, half turn, quarter turn
Angle,is a greater / smaller angle than
Right angle
Straight line
Stretch, bend

Repeat
What comes next?
Predict
Describe the pattern
Describe the rule
Find, find all, find different
Investigate
Choose
Decide
Collect
Use
Make
Build
Tell me
Describe
Name
Pick out
Discuss
Talk about
Explain
Explain your method
explain how you got your answer
give an example of
show how you
show your working
read
write
record
write in figures
present
represent
interpret
identify
trace copy
complete
finish, end
fill in
shade, colour
label
tick, cross
draw, sketch
draw a line between
join (up)
ring
arrow
cost, count, tally
calculate
work out
solve
investigate
question
answer
check

General

Same, different
Missing number/s
Number facts, Number pairs, Number bonds
Greatest value, least value
Number line, number track
Number square, hundred square
Number cards
Number grid
Abacus
Counters, cubes, blocks, rods

Die, dice
Dominoes
Pegs, peg board
Geo-strips
Same way, different way
Best way, another way
In order, in a different order
Not
All, every, each

Year 4

Place value, Ordering & Rounding

Units, ones
Tens, hundreds, thousands
Ten thousand, hundred thousand, million
Digit, one-, two-, three- or four –digit number
Numeral
'teens' number
Place, place value
Stands for, represents
Exchange
The same number as, as many as
Equal to
Roman numerals to 100 (I to C)

Of two objects / amounts:

- >, greater than, more than, larger than, bigger than
- <, less than, fewer than, smaller than

Of three or more objects / amounts:

- Greatest, most, largest, biggest
- Least, fewest, smallest
- One.... Ten..... one hundred..... one thousand more / less
- Compare, order, size
- First..... tenth..... twentieth
- Last, last but one
- Before, after
- Next
- Between, half-way between
- Guess how many, estimate
- Nearly, roughly, close to, about the same as
- Approximate, approximately
- Just over, just under
- Exact, exactly
- Too many, too few, enough, not enough
- Round (up or down), nearest
- Round to the nearest ten
- Round to the nearest hundred
- Round to the nearest thousand
- Integer, positive, negative
- Above / below zero, minus

Fractions & Decimals

part, equal parts
fraction, equivalent fraction
non-unit fraction
one whole
half, quarter, eighth
third, sixth
fifth, tenth, twentieth
ones, tenths, hundredths
proportion, in every, for every
decimal, decimal fraction, decimal equivalent
decimal point, decimal place
denominator

Calculations – Multiplication & Division

Lots of, groups of
Times, multiply, multiplication, multiplied by
Multiple of, product
Once, Twice, three times ten times

Properties of Numbers & Number Sequences

Number, count, how many.....?
Odd, even
Every other
How many times?
Count in multiples of 6,7,9,25 and 1000
Multiple of
Digit
Next, consecutive
Sequence
Continue
Predict
Pattern, pair, rule
Relationship
Sort, classify, property

Calculations – Addition & Subtraction

Add, addition, more, plus, increase
Sum, total, altogether
Score
Double, near double
How many more to make?
Subtract, subtraction, take (away), minus, decrease
Leave, how many are left / left over?
Difference between
Half, halve
How many more / fewer is..... than.....?
How much more / less is.....?
Equals, sign, is the same as
Tens boundary, hundreds boundary
Inverse
Columnar addition, subtraction

Solving Problems – Making Decision & Reasoning

Pattern, puzzle
Calculate, calculation
Mental calculation
Method

Times as (big, long, wide..... and so on)
Repeated addition
Array
Row, column
Double, halve
Share, share equally
One each, two each, three each

Group in pairs, threes

Tens
Equal groups of
Divide, division, divided by, divided into
Remainder
Factor, quotient, divisible by
Inverse
Inter scaling problems

Money

Money
Coin, note
Penny, pence, pound (£)
Price, cost
Buy, bought, sell, sold
Spend, spent
Pay
Change
Dear, costs more, more/most expensive
Cheap, costs less, cheaper, less/least expensive
How much.....? How many.....?
Total, amount
Value, worth

Measurements - General

Measure, measurements
Size
Compare
Unit, standard unit
Metric unit, imperial unit
Measuring scale, division
Guess, estimate
Enough, not enough
Too much, too little
Too many, too few
Nearly, roughly, about, close to
About the same as, approximately
Just over, just under
Rectilinear

Measurements - Mass

Mass: big, bigger, small, smaller, balances
Weigh: Heavy / light, heavier / lighter, heaviest / lightest
Weigh, weighs
Kilogram (kg), half kilogram, gram (g)
Balance, scales

Measurements - Time

Time
Days of the week: Monday, Tuesday.....
Months of the year: January, February, March.....
Seasons: spring, summer, autumn, winter
Day, week, fortnight, month, year, leap year, century, millennium
Weekend, birthday, holiday
Calendar, date, date of birth
Morning, afternoon, evening, night
Am, pm, noon, midnight
Today, yesterday, tomorrow
Before, after, Next, last
Now, soon, early, late, earliest, latest
Quick, quicker, quickest, quickly

Jotting
Answer
Right, correct, wrong
What could we try next?
How did you work it out?
Number sentence
Sign, operation, symbol, equation

Handling Data

Count, tally, sort, vote
Survey, questionnaire, data
Graph, block graph, pictogram, time graph
Represent
Group set
List, chart, bar chart, tally chart
Table, Frequency table
Carroll diagram, venn diagram
Label, title, axis, axes
Diagram
Most popular, most common
Least popular, least common
Solve, comparison, sum

Measurements - Length

Length, width, height, depth, breadth
Long, short, tall, high, low
Wide, narrow, deep, shallow, thick, thin
Longer, shorter, taller, higher..... and so on
Longest, shortest, tallest, highest And so on
Far, further, furthest, near, close,
Distance apart/between, distance to...../from.....
Edge, perimeter
Kilometre (km), Metre (m), centimetre (cm), millimetre (mm), mile
Ruler, metre stick, tape measure

Measurements - Capacity

Capacity
Full, half full
Empty
Holds, contains
Litre (l), half-litre, millilitre (ml)
pint
container, measuring cylinder

Measurements - Area

Area, covers, surface
Square centimetre (cm²)
Perimeter

Fast, faster, fastest, Slow, slower, slowest, slowly
Old, older, oldest, New, newer, newest
Takes longer, takes less time
How long ago? How long will it be to....?
How long will it take to.....?
Timetable, arrive, depart
Hour, minute, second
O'clock, half past, quarter to, quarter past
Clock, watch, hands
Digital/analogue clock/watch, timer
How often?
Always, never, often, sometimes, usually
Roman numerals

Measurements – Shape & Space

Shape, pattern
Flat, line
curved, straight
Round
Hollow, solid
Corner
Point, pointed
Face, side, edge, end
Sort
Make, build, draw, sketch
Centre, radius, diameter
net
Surface
Angle, Right-angled
Base, square based
Vertex, vertices
Layer, diagram
Regular, irregular
Concave, convex
Open, closed
Geometric shape
Acute, obtuse
Regular/irregular
polygon

3D Shapes

3D, three-dimensional
Cube
Cuboid
Pyramid
Sphere, hemi – sphere, spherical
Cone
Cylinder, cylindrical
Prism
Tetrahedron, polyhedron

2D Shapes

2D, two-dimensional
Circle, circular, semi - circle
Triangle, triangular
Equilateral triangle, isosceles triangle, scalene
Square
Rectangle, rectangular, oblong
Pentagon, pentagonal
Hexagon, hexagonal
heptagon
Octagon, octagonal
Quadrilateral
Parallelogram, rhombus, trapezium

Measurements – Patterns & Symmetry

Size
Bigger, larger, smaller
Symmetrical
Line of symmetry, Line symmetry
Fold
Match
Mirror line, reflection, reflect
Pattern, repeating pattern, translation

Position, Direction & Movement

Position
Over, under, underneath
Above, below, top, bottom, side
On, in, outside, inside, around
In front, behind, front, back
Before, after, beside, next to
Opposite, apart
Between, middle, edge, centre
Corner
Direction
Journey, route, map, plan
Left, right
Up, down, higher, lower
Forwards, backwards, sideways, across
Close, far, near
Along, through, to, from, towards, away from
Ascend, descend
Grid
Row, column
Origin, coordinates
Clockwise, anti-clockwise
Compass point, north, south, east, west (N, S, E, W)
North-east, north-west, south-east, south-west (NE, NW, SE, SW)
Horizontal, vertical, diagonal
Movement
Slide, roll
Whole turn, half turn, quarter turn, rotate
Angle, ...is a greater / smaller angle than
Right angle
Degree
Straight line
Stretch, bend
Ruler, set square
Angle measurer, compasses
Quadrant

General

Same, different
Missing number/s
Number facts, Number pairs, Number bonds
Greatest value, least value
Number line, number track
Number square, hundred square
Number cards, number grid
Abacus
Counters, cubes, blocks, rods
Die, dice
Dominoes
Pegs, peg board
Geo-strips
Same way, different way
Best way, another way
In order, in a different order
Not
All, every, each

Instructions

Listen, join in, say, recite
Think, imagine, remember
Start from, start with, start at
Look at, point to, show me
Put, place
Arrange, rearrange
Change, change over
Split, separate
Carry on, continue, repeat
What comes next?, predict
Describe the pattern, describe the rule
Find, find all, find different
Investigate
Choose, decide
Collect
Use, make, build, construct
Tell me, describe, name, pick out
Discuss, talk about
Explain
Explain your method
explain how you got your answer
give an example of
show how you
show your working
justify
make a statement
read, write, record
write in figures
present, represent
interpret
trace, copy
complete, finish, end
fill in, shade, colour
label, plot
tick, cross
draw, sketch
draw a line between, join (up), ring, arrow
cost, count, tally
calculate, work out, solve
investigate, question
answer
check

Year 5

Place Value, Ordering & Rounding

Units, ones
Tens, hundreds, thousands
Ten thousand, hundred thousand, million
Digit, one-, two-, three- or four –digit number
Numeral
'teens' number
Place, place value
Stands for, represents
Exchange
The same number as, as many as
Equal to
Roman numerals to 1000 (M)

Of two objects / amounts:

- $>$, greater than, more than, larger than, bigger than
- $<$, less than, fewer than, smaller than,

Of three or more objects / amounts:

- Greatest, most, largest, biggest
- Least, fewest, smallest
- One.... Ten..... one hundred..... one thousand more / less
- Compare, order, size
- Ascending / descending order
- First..... tenth..... twentieth
- Last, last but one
- Before, after, next
- Between, half-way between
- Guess how many, estimate
- Nearly, roughly, close to, about the same as
- Approximate, approximately
- Just over, just under
- Exact, exactly
- Too many, too few, enough, not enough
- Round (up or down), nearest
- Round to the nearest ten / hundred
- Round to the nearest thousand / ten thousand
- Round to the nearest million
- Integer
- Positive, negative
- Above / below zero, minus

Fractions, Decimals, Percentages, Ratio & Proportion

part, equal parts
fraction, proper / improper fraction
mixed number
numerator, denominator
equivalent, reduced to, cancel
one whole
half, quarter, eighth
third, sixth, ninth, twelfth
fifth, tenth, twentieth, hundredth, thousandths
proportion, ratio
in every, for every
to every, as many as
decimal, decimal fraction
decimal point, decimal place
percentage, per cent, %

Properties of Numbers & Number Sequences

Number, count, how many.....?
Odd, even
Every other
How many times?
Multiple of
Digit
Next, consecutive
Sequence, linear number sequence
Continue
Predict
Pattern, pair, rule
Relationship
Sort, classify, property
Formula
Divisible (by), divisibility, factor
Square number
One squared, two squared..... (12, 22.....)

Calculations – Addition & Subtraction

Add, addition, more, plus, increase
Sum, total, altogether
Score
Double, near double
How many more to make?
Subtract, subtraction, take (away), minus, decrease
Leave, how many are left / left over?
Difference between
Half, halve
How many more / fewer is..... than.....?
How much more / less is.....?
Equals, sign, is the same as
Tens boundary, hundreds boundary
Units boundary, tenths boundary
Inverse
Columnar addition, subtraction

Calculations – Multiplication & Division

Lots of, groups of
Times, multiply, multiplication, multiplied by
Multiple of, product
Once, Twice, three times ten times
Times as (big, long, wide..... and so on)
Repeated addition
Array
Row, column
Double, halve
Share, share equally
One each, two each, three each
Group in pairs, threes Tens
Equal groups of
Divide, division, divided by, divided into
Remainder
Factor, quotient, divisible by
Inverse
Prime number, prime factor, composite (non-prime)
Square (²), cubed (³)

Solving Problems – Making Decisions & Reasoning

Pattern, puzzle
Calculate, calculation
Mental calculation
Method
Jotting
Answer
Right, correct, wrong
What could we try next?
How did you work it out?
Number sentence
Sign, operation, symbol, equation

Handling Data

Count, tally, sort, vote
Survey, questionnaire
Data, database
Graph, block graph, line graph, time graph
Pictogram
Represent
Group set
List, chart, bar chart, bar line chart
Tally chart
Table, Frequency table
Carroll diagram, venn diagram
Label, title, axis, axes
Diagram
Most popular, most common
Least popular, least common
Mode, range
Maximum / minimum value
Classify, outcome
Comparison, sum

Measurements - General

Measure, measurements
Size
Compare
Unit, standard unit
Metric unit, imperial unit
Measuring scale, division
Guess, estimate
Enough, not enough
Too much, too little

Using a Calculator

Calculator
Display, key, enter, clear
constant

Money

Money
Coin, note
Penny, pence, pound (£)
Price, cost
But, bought, sell, sold
Spend, spent
Pay
Change
Dear, costs more, more/most expensive
Cheap, costs less, cheaper, less/least expensive
How much....? How many.....?
Total, amount, value, worth
Discount
currency

Probability

Fair, unfair
Likely, unlikely, likelihood
Certain, uncertain
Probable, possible, impossible
Chance, good chance
Risk, doubt

Measurements - Length

Length, width, height, depth, breadth
Long, short, tall, high, low
Wide, narrow, deep, shallow, thick, thin
Longer, shorter, taller, higher..... and so on
Longest, shortest, tallest, highest And so on
Far, further, furthest, near, close,
Distance apart/between, distance to...../from.....
Edge, perimeter
Kilometre (km), Metre (m), inches, centimetre (cm), millimetre (mm),

Too many, too few
Nearly, roughly, about, close to
About the same as, approximately
Just over, just under

Measurements - Mass

Mass: big, bigger, small, smaller, balances
Weigh: Heavy / light, heavier / lighter, heaviest / lightest
Weigh, weighs
Kilogram (kg), half kilogram, gram (g), pounds
Balance, scales

Measurements - Time

Time
Days of the week: Monday, Tuesday.....
Months of the year: January, February, March.....
Seasons: spring, summer, autumn, winter
Day, week, fortnight, month, year, leap year, century, millennium
Weekend, birthday, holiday
Calendar, date, date of birth
Morning, afternoon, evening, night
Am, pm, noon, midnight
Today, yesterday, tomorrow
Before, after, Next, last
Now, soon, early, late, earliest, latest
Quick, quicker, quickest, quickly
Fast, faster, fastest, Slow, slower, slowest, slowly
Old, older, oldest, New, newer, newest
Takes longer, takes less time
How long ago? How long will it be to....?
How long will it take to.....?
Timetable, arrive, depart
Hour, minute, second
O'clock, half past, quarter to, quarter past
Clock, watch, hands
Digital/analogue clock/watch, timer
24-hour clock, 12-hour clock
How often?
Always, never, often, sometimes, usually

Measurements – Shape & Space

Shape, pattern
Flat, line
curved, straight
Round
Hollow, solid
Corner
Point, pointed
Face, side, edge, end
Sort
Make, build, construct, draw, sketch
Centre, radius, diameter
net
Surface
Angle, Right-angled
Congruent
Base, square based
Vertex, vertices
Layer, diagram
Regular, irregular
Concave, convex
Open, closed
Degree (°)

3D Shapes

3D, three-dimensional

mile,
Ruler, metre stick, tape measure

Measurements - Capacity

Capacity, volume (³)
Full, half full
Empty
Holds, contains
Litre (l), half-litre, millilitre (ml)
Pint, gallon
container, measuring cylinder

Measurements - Area

Area, covers, surface
Square centimetre (cm²), square metre (m²)
Square millimetre (mm²)
Perimeter

Measurements – Patterns & Symmetry

Size
Bigger, larger, smaller
Symmetrical
Line of symmetry, axis of symmetry
Line symmetry, reflective symmetry
Fold
Match
Mirror line, reflection, reflect
Pattern, repeating pattern, translation

Cube
Cuboid
Pyramid
Sphere, hemi – sphere, spherical
Cone
Cylinder, cylindrical
Prism
Tetrahedron, polyhedron, octahedron

2D Shapes

2D, two-dimensional
Circle, circular, semi - circle
Triangle, triangular
Equilateral triangle, isosceles triangle, scalene triangle
Square
Rectangle, rectangular, oblong
Pentagon, pentagonal
Hexagon, hexagonal
heptagon
Octagon, octagonal
Polygon
Quadrilateral

Position, Direction & Movement

Position
Over, under, underneath
Above, below, top, bottom, side
On, in, outside, inside, around
In front, behind, front, back
Before, after, beside, next to
Opposite, apart
Between, middle, edge, centre
Corner
Direction
Journey, route, map, plan
Left, right
Up, down, higher, lower
Forwards, backwards, sideways, across
Close, far, near
Along, through, to, from, towards, away from
Ascend, descend
Grid, row, column
Origin, coordinates
Clockwise, anti-clockwise
Compass point, north, south, east, west (N, S, E, W)
North-east, north-west, south-east, south-west (NE, NW, SE, SW)
Horizontal, vertical, diagonal
Parallel, perpendicular
x-axis, y-axis
Quadrant
Movement
Slide, roll
Whole turn, half turn, quarter turn,
Rotate, rotation
Angle, ...is a greater / smaller angle than
Right angle, acute, obtuse
Degree
Straight line
Stretch, bend
Ruler, set square
Angle measurer, compasses, protractor
reflection

Instructions

Listen, join in, say, recite
Think, imagine, remember
Start from, start with, start at
Look at, point to, show me
Put, place
Arrange, rearrange
Change, change over
Split, separate
Carry on, continue, repeat
What comes next?, predict
Describe the pattern, describe the rule
Find, find all, find different
Investigate
Choose, decide
Collect
Use, make, build, construct, bisect
Tell me, describe, name, pick out, identify
Discuss, talk about
Explain
Explain your method / answer / reasoning
give an example of
show how you
show your working
justify
make a statement
read, write, record
write in figures
present, represent
interpret
trace, copy
complete, finish, end
fill in, shade, colour
label, plot
tick, cross
draw, sketch
draw a line between, join (up), ring, arrow
cost, count, tally
calculate, work out, solve, convert
investigate, question
answer
check

General

Same, different

Missing number/s

Number facts, Number pairs, Number bonds

Greatest value, least value

Number line, number track

Number square, hundred square

Number cards, number grid

Abacus

Counters, cubes, blocks, rods

Die, dice, spinner

Dominoes

Pegs, peg board, pin board

Geo-strips

Same way, different way

Best way, another way

In order, in a different order

Not

All, every, each

Year 6

Place Value, Ordering & Rounding

Units, ones
Tens, hundreds, thousands
Ten thousand, hundred thousand, million, ten million
Digit, one-, two-, three- or four –digit number
Numeral
'teens' number
Place, place value
Stands for, represents
Exchange
The same number as, as many as
Equal to

Of two objects / amounts:

- $>$, greater than, more than, larger than, bigger than
- $<$, less than, fewer than, smaller than,

Of three or more objects / amounts:

- Greatest, most, largest, biggest
- Least, fewest, smallest
- One.... Ten..... one hundred..... one thousand more / less
- Compare, order, size
- Ascending / descending order
- First..... tenth..... twentieth
- Last, last but one
- Before, after
- Next
- Between, half-way between
- Guess how many, estimate
- Nearly, roughly, close to, about the same as
- Approximate, approximately
- Just over, just under
- Exact, exactly
- Too many, too few, enough, not enough
- Round (up or down), nearest
- Round to the nearest ten / hundred / thousand
- Integer, positive, negative
- Above / below zero, minus

Fractions, Decimals, Percentages, Ratio & Proportion

part, equal parts, unequal parts
fraction, proper / improper fraction
mixed number
numerator, denominator
equivalent, reduced to, cancel
one whole
half, quarter, eighth
third, sixth, ninth, twelfth
fifth, tenth, twentieth, hundredth, thousandth
proportion, ratio
in every, for every
to every, as many as
decimal, decimal fraction
decimal point, decimal place
percentage, per cent, %
integer
scale factor
pie charts

Properties of Numbers & Number Sequences

Number, count, how many.....?
Odd, even
Every other
How many times?
Multiple of
Digit
Next, consecutive
Sequence
Continue
Predict
Pattern, pair, rule
Relationship
Sort, classify, property
Formula
Divisible (by), divisibility, factor, factorise
Square number
One squared, two squared..... (12, 22....)
Prime, prime factor

Calculations – Addition & Subtraction

Add, addition, more, plus, increase
Sum, total, altogether
Score
Double, near double
How many more to make?
Subtract, subtraction, take (away), minus, decrease
Leave, how many are left / left over?
Difference between
Half, halve
How many more / fewer is..... than.....?
How much more / less is.....?
Equals, sign, is the same as
Tens boundary, hundreds boundary
Units boundary, tenths boundary
Inverse
Columnar addition, subtraction

Calculations – Multiplication & Division

Lots of, groups of
Times, multiply, multiplication, multiplied by
Multiple of, product
Once, Twice, three times ten times
Times as (big, long, wide..... and so on)
Repeated addition
Array, row, column
Double, halve
Share, share equally
One each, two each, three each
Group in pairs, threes Tens
Equal groups of
Divide, division, divided by, divided into
Remainder
Factor, quotient, divisible by
Inverse
Long / short multiplication, division
Prime

Solving Problems – Making Decisions & Reasoning

Pattern, puzzle
Calculate, calculation
Mental calculation
Method, strategy
Jotting
Answer
Right, correct, wrong
What could we try next?
How did you work it out?
Number sentence
Sign, operation, symbol, equation

Handling Data

Count, tally, sort, vote
Survey, questionnaire
Data, database
Graph, block graph, line graph
Pictogram
Represent
Group set
List, chart, bar chart, bar line chart
Pie chart
Tally chart
Table, Frequency table
Carroll diagram, venn diagram
Label, title, axis, axes
Diagram
Most popular, most common
Least popular, least common
Mode, range, mean, average, median
Statistics, distribution
Maximum / minimum value
Classify, outcome

Measurements - General

Measure, measurements
Size
Compare
Unit, standard unit
Metric unit, imperial unit
Measuring scale, division
Guess, estimate
Enough, not enough
Too much, too little

Using a Calculator

Calculator
Display, key, enter, clear, sign change
Constant, recurring, memory, operation key

Algebra

Formulae
Linear number sequence
Equation
Enumerate
Variables
Missing numbers, lengths, coordinates, angles
Equivalent expressions
Number patterns, puzzles

Money

Money
Coin, note
Penny, pence, pound (£)
Price, cost
But, bought, sell, sold
Spend, spent
Pay
Change
Dear, costs more, more/most expensive
Cheap, costs less, cheaper, less/least expensive
How much.....? How many.....?
Total, amount, value, worth
Discount, profit, loss
currency

Probability

Fair, unfair
Likely, unlikely, likelihood, equally likely
Certain, uncertain
Probable, possible, impossible
Chance, good chance
Poor chance, no chance
Equal chance, even chance, fifty – fifty chance
Risk, doubt
Biased, random

Measurements - Length

Length, width, height, depth, breadth
Long, short, tall, high, low
Wide, narrow, deep, shallow, thick, thin
Longer, shorter, taller, higher..... and so on
Longest, shortest, tallest, highest And so on
Far, further, furthest, near, close,
Distance apart/between, distance to...../from.....
Edge, perimeter, circumference
Kilometre (km), Metre (m), centimetre (cm), millimetre (mm)

Too many, too few
Nearly, roughly, about, close to
About the same as, approximately
Just over, just under

Measurements - Mass

Mass: big, bigger, small, smaller, balances
Weigh: Heavy / light, heavier / lighter, heaviest / lightest
Weigh, weighs
Tonne, kilogram (kg), half kilogram, gram (g)
Pound (lb), ounce (oz)
Balance, scales

Measurement - Time

Time
Days of the week: Monday, Tuesday.....
Months of the year: January, February, March.....
Seasons: spring, summer, autumn, winter
Day, week, fortnight, month, year, leap year, century, millennium
Weekend, birthday, holiday
Calendar, date, date of birth
Morning, afternoon, evening, night
Am, pm, noon, midnight
Today, yesterday, tomorrow
Before, after, Next, last
Now, soon, early, late, earliest, latest
Quick, quicker, quickest, quickly
Fast, faster, fastest, Slow, slower, slowest, slowly
Old, older, oldest, New, newer, newest
Takes longer, takes less time
How long ago? How long will it be to....?
How long will it take to.....?
Timetable, arrive, depart
Hour, minute, second
O'clock, half past, quarter to, quarter past
Clock, watch, hands
Digital/analogue clock/watch, timer
24-hour clock, 12-hour clock
Greenwich Mean Time, British Summer Time
International Date Line
How often?
Always, never, often, sometimes, usually

Measurements – Shape & Space

Shape, pattern
Flat, line
curved, straight
Round
Hollow, solid
Corner
Point, pointed
Face, side, edge, end
Sort
Make, build, construct, draw, sketch
Centre, radius, diameter
Circumference, concentric, arc
net
Surface
Angle, Right-angled
Congruent
Intersecting, intersection
Plane
Base, square based
Vertex, vertices
Layer, diagram
Regular, irregular
Concave, convex
Open, closed

Mile, yard, feet, foot, inches, inch
Ruler, metre stick, tape measure, compasses
Cubic centimetre (cm³), metres (m³) millimetres (mm³) kilometres (km³)

Measurements - Capacity

Capacity, volume
Full, half full, empty
Holds, contains
Litre (l), half-litre, centilitre (cl), millilitre (ml)
Pint, gallon
container, measuring cylinder

Measurements - Area

Area, covers, surface
Square centimetre (cm²), square metre (m²)
Square millimetre (mm²)
Perimeters

Measurements – Patterns & Symmetry

Size
Bigger, larger, smaller
Symmetrical
Line of symmetry, axis of symmetry
Line symmetry, reflective symmetry
Fold
Match
Mirror line, reflection, reflect
Pattern, repeating pattern, translation
Dissection

Tangram
Geometric

3D Shapes

3D, three-dimensional
Cube
Cuboid
Pyramid
Sphere, hemi – sphere, spherical
Cone
Cylinder, cylindrical
Prism
Tetrahedron, polyhedron, octahedron

2D Shapes

2D, two-dimensional
Circle, circular, semi - circle
Triangle, triangular
Equilateral triangle, isosceles triangle, scalene triangle
Square, rhombus
Rectangle, rectangular, oblong
Pentagon, pentagonal
Hexagon, hexagonal
heptagon
Octagon, octagonal
Polygon
Quadrilateral
Kite
Parallelogram, trapezium

Position, Direction & Movement

Position
Over, under, underneath
Above, below, top, bottom, side
On, in, outside, inside, around
In front, behind, front, back
Before, after, beside, next to
Opposite, apart
Between, middle, edge, centre
Corner
Direction
Journey, route, map, plan
Left, right
Up, down, higher, lower
Forwards, backwards, sideways, across
Close, far, near
Along, through, to, from, towards, away from
Ascend, descend
Grid, row, column
Origin, coordinates, coordinate plane
Clockwise, anti-clockwise
Compass point, north, south, east, west (N, S, E, W)
North-east, north-west, south-east, south-west (NE, NW, SE, SW)
Horizontal, vertical, diagonal
Parallel, perpendicular
x-axis, y-axis
Quadrant
Movement
Slide, roll
Whole turn, half turn, quarter turn, rotate, rotation
Angle, ...is a greater / smaller angle than
Right angle, acute, obtuse, reflex
Degree
Straight line
Stretch, bend
Ruler, set square

Instructions

Listen, join in, say, recite
Think, imagine, remember
Start from, start with, start at
Look at, point to, show me
Put, place
Arrange, rearrange
Change, change over
Adjusting, adjust
Split, separate
Carry on, continue, repeat
What comes next?, predict
Describe the pattern, describe the rule
Find, find all, find different
Investigate
Choose, decide
Collect
Use, make, build, construct, bisect
Tell me, define, describe, name, pick out, identify
Discuss, talk about
Explain
Explain your method / answer / reasoning
give an example of
show how you
show your working
justify
make a statement
read, write, record
write in figures
present, represent
interpret
trace, copy
complete, finish, end
fill in, shade, colour
label, plot
tick, cross

Angle measurer, compasses, protractor

draw, sketch

draw a line between, join (up), ring, arrow

cost, count, tally

calculate, work out, solve, convert

investigate, interrogate (data), question, prove
answer

check

General

Same, identical, different

Missing number/s

Number facts, Number pairs, Number bonds

Greatest value, least value

Number line, number track

Number square, hundred square

Number cards, number grid

Abacus

Counters, cubes, blocks, rods

Die, dice, spinner

Dominoes

Pegs, peg board, pin board

Geo-strips

Same way, different way

Best way, another way

In order, in a different order

Not

All, every, each