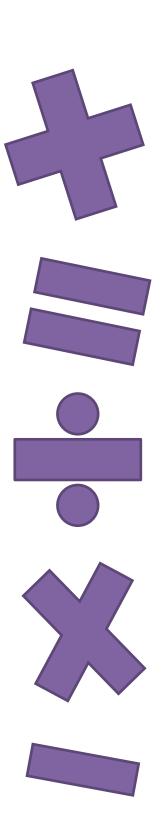


Mathematical Vocabulary

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 Queensmead Primary Academy:

- Class Teacher
- Teaching Assistants/Learning Support Assistants
- SENDCo
- Parents
- Pupils
- Volunteers
- Supply Staff
- Number Partners Programme (Volunteers)

Why do we need this booklet?

At Queensmead Primary Academy we 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,
 - o such as 'draw a line between...', 'ring...' or 'find two different ways to...'
- they are not familiar with the mathematical vocabulary,
 - o that is, words such as 'difference', 'subtract', 'divide' or 'product'



- they may be confused about mathematical terms,
 - o such as 'odd' or 'table', which have different meanings in everyday English
- they may be confused about other words,
 - o 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 les 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 year, with new words for the year printed in purple from Year 2 onwards. 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).

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MATHEMATICS VOCABULARY

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 Queensmead Primary Academy 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

MATHEMATICS VOCABULARY

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.

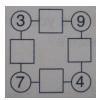
A chew costs 3p. A lolly costs 7p. What do they cost altogether?

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:

What are four threes?



What is 7 x 6?

How many centimetres are there in a metre?

Continue the sequence 1, 2, 4...

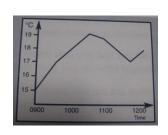
What is one fifth add four fifths?

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:

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.

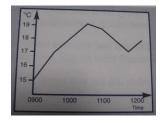
Find ways of continuing this sequence: 1, 2, 4...

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, 1/2

quarter, 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

MATHEMATICS VOCABULARY

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

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

bullu

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 $\ldots \ldots$

Group in pairs, threes Tens

Equal groups of

÷, divide, divided by, divided into

Left, left over

MATHEMATICS VOCABULARY

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

But, 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 (I), 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



<u>2D Shapes</u> 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

Forwards, backwards, sideways

Across Close, far, near Along Through

Higher, lower

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, differen

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

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

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

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

сору

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

MATHEMATICS VOCABULARY

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 (I), 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

<u>3D Shapes</u>

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

Direction Journey, route, map, plan

Left, right

Centre

Corner

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

MATHEMATICS VOCABULARY

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 angel 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

shade, colour label tick, cross draw, sketch draw a line between

join (up) ring arrow

fill in

cost, count, tally

cost, count, to 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

MATHEMATICS VOCABULARY

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

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

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 (I), half-litre, millilitre (ml)

pint

container, measuring cylinder

Measurements - Area

Area, covers, surface

Square centimetre (cm²)

Perimeter

MATHEMATICS VOCABULARY

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

MATHEMATICS VOCABULARY

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 angel 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

MATHEMATICS VOCABULARY

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),

MATHEMATICS VOCABULARY

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 (I), 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

MATHEMATICS VOCABULARY

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 angel 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

Best way, another way In order, in a different order

All, every, each

Not

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



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, %

integar

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 $\ldots \ldots$

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

Ruler, metre stick, tape measure, compasses

Cubic centimetre (cm³), metres (m³) millimetres (mm³) kilometres (km³)

Measurements - Capacity

Mile, yard, feet, foot, inches, inch

Capacity, volume

Full, half full, empty

Holds, contains

Litre (I), half-litre, centilitre (cI), millilitre (mI)

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

MATHEMATICS VOCABULARY

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 angel 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

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 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

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