

Oxford Vocabulary Framework for Maths



Oxford
Vocabulary
Framework

OXFORD

About the Oxford Vocabulary Framework

Oxford University Press (OUP) has long been investigating the effect of a language deficit on children's education and the negative impact this can have on their life chances. As the creators of the Oxford Children's Corpus (OCC)—the largest living database of children's reading and writing in English, with over ½ billion words—a team at OUP set out on a data-driven research journey to understand when and how often children are exposed to different types of vocabulary as part of their education, from early years foundation stage to Key stage 3, ages 5–14. After reviewing the insights that this provided, OUP created a progressive framework of vocabulary: the *Oxford Vocabulary Framework* (OVF).

The OVF presents a list of words that children are expected to encounter in their reading and writing and general classroom discussions as they progress through the first 10 years of their school life, from primary to secondary (Reception to Year 9, at the end of Key stage 3). Based on frequency analysis, OUP's expertise in children's language research, and feedback from educational experts, the progression in the OVF ensures more common words appear in the younger years and progress in difficulty as children move up the school years with more challenging words featuring in later year groups. The OVF sets out to highlight those words that—according to the data—are most commonly used or encountered and which have the most utility across different subject areas.

Using the Oxford Vocabulary Framework, recent analysis of the 2023 KS3 English and Maths SATs papers have again highlighted the importance of ensuring a solid understanding of Tier 2 words:

- 31% of the KS2 Reading paper and Reading Answer booklet were made up of Tier 2 words
- Tier 2 words made up 25–27% of the language used in Maths papers
- Examples of these words include: appropriate, decide, compare, complete, estimate.
- If children do not have a solid foundation of these Tier 2 words, they will struggle to access, let alone answer, the question.
- This carries right on up to KS4. Analysis of 2022 GCSE AQA English Language and Maths papers showed between 34–40% of the language used was Tier 2 vocabulary.

The following presents a list of words from the OVF that are specific to maths, from Reception to Year 6, according to their maths strand and year group. The words are accompanied by age-appropriate definitions, taken from the suite of *Oxford Children's Dictionaries*.

We hope you will find it useful.



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Number

RECEPTION

1 less/1 less than
1 more/1 more than
big/bigger/biggest
count (up/down) from/to
count/counting
count back (from, to)
count in ones
count on (from, to)
count out
difference (between)
double/doubling
doubles

equal(s)
equal amounts/shares
even
few/fewer/fewest
first, second... tenth
five, 5
four, 4
great/greater/greatest
high/higher/highest
how many...?
large/larger/largest
less

more
none
number
number bond
number cards
number facts
number line
number square
number track
odd
one, 1
one, two, three... twenty

pair(s)
part(s)
pattern(s)
repeating pattern(s)
same/same as
ten, twenty... one hundred
ten less/more
the same number as
three, 3
two, 2
zero

YEAR 1

amount
bigger/smaller
count on/back/in
equal to
equivalent to
even

few/fewest
figure
great/greater/greatest
greater than
how many (more)...?
is the same value as

least
most
odd/even
one hundred
ones, twos, fives, tens
order/in order

pair
sequence
smallest

YEAR 2

1-digit number
2-digit number
digit
predict

quantity
set
tally
tens

turn
units
value

YEAR 3

3-digit number
factor (of)
fifties

number names to 1000
one thousand
Roman numerals

YEAR 4

4-digit number
classify
consecutive
decimal
decimal number

decimal place
decimal point
horizontal
hundredths
increasing/decreasing

integer
magnitude
minus
negative numbers
number range

positive numbers
ten thousand
tenths
whole number

YEAR 5

5-digit number(s)
cubed
cubed number

divisible/divisibility
factor pair
formula

hundred thousand
one million
prime number
squared

square number
 \leq less than or equal to
 \geq greater than or equal to

YEAR 6

digit total
factorise
figures

prime
prime factor
zero

Place Value & Order

RECEPTION

after
as many as
backwards
between
decrease
digit

first
forwards
increase
last
next
ones

order
partition
parts of a number
size
ten(s)

YEAR 1

after
as many as
base 10
before
compare
fewer
greater/greatest

halfway
hundred square
larger/largest
number(s)
number line
part
part-whole model

partition
smaller/smallest
total
unit(s)
whole

YEAR 2

column
decrease
halfway between
higher
hundreds

hundred less/more
increase
interval(s)
lower
multiples of (ten)

ones column
partition
pattern
placeholder
place value

position
recombine
tens column
twenty-first
twenty-second

YEAR 3

arrange
arrangement
ascending

descending
midpoint
one hundred less/more

pattern
thousand(s)

YEAR 4

4-digit number
classify
consecutive
decimal
decimal number

decimal place
decimal point
horizontal
hundredths
increasing/decreasing

integer
magnitude
minus
negative numbers
number range

positive numbers
ten thousand
tenths
whole number

YEAR 5

hundred thousand
part-whole relationship

power(s) of 10
ten times

thousandths column
thousand times

YEAR 6

hundred thousand column
millions column
one million

scale interval
ten million
ten thousand column

zero

Addition & Subtraction

RECEPTION

add
adding
adding more
addition
altogether
and

double
how many fewer is... than...?
how many left/left over?
how many more is... than...?
how many more to make... ?
make

minus
more
one/two/ten less
one/two/ten more
plus
subtract

subtraction
subtracting
sum
take (away)
taking away
total

YEAR 1

add(ed)
addition
altogether
calculation
combine/combination

difference (between)
equals
fact family
half/halve
how many...?

minus
missing number
near doubles
number bonds/pairs
number sentence

plus
subtract/subtracting
subtraction
take away
total

YEAR 2

adding sentence/story
balances/balancing
column(s)
count back

in total
inverse
larger
multiple

number facts
numeral
part-whole model
row

smaller
sum
whole tens

YEAR 3

balances/balancing
bar model
column addition/subtraction

complete
error
function machine

number trio
part-whole model
partition/partitioning

rearrange
regroup
related facts

YEAR 4

column method/calculation
complements

not equal to
regrouping

rounding
zero as a place holder

YEAR 5

bridging
decimals

efficient written method
integers

inverse relationship
quantity value

tenths boundary
units boundary

YEAR 6

above/below zero
brackets
negative

order of operations
positive

Multiplication & Division

RECEPTION

double
each
equal

fair share
group
half

left over
share (out)
sharing

YEAR 1

array
balances
columns/rows
count in tens
division/divided by

double/doubling/doubled
equal groups
group/groups of
halving
left/left over

lots of
multiple
multiplication
multiplied by
once, twice, three/five times

repeated addition
sharing

YEAR 2

altogether
balances
combinations
divide
each
equal/unequal
equation

equivalent
group (equally/between)
groups of
inverse
left over
lots of...
multiplication table

part
product
scale up
set
share (equally/between)
signs/symbols
split (equally/between)

times
times table
total
twice as big/small as

YEAR 3

bar model
compact method
divided equally
divisor

equal/unequal parts
fact family
grouped equally
half/double the size

how many times bigger/smaller?
part-whole model
partition
quarter/quartering

regroup/regrouping
remain/remains/remaining
remainder
scaling up/down

YEAR 4

... times bigger/smaller
common multiples
derive
divisible by...

factor pair
fraction
hundred square
lowest common multiple

multiples
ratio
related facts
square/squared

times table square
triple

YEAR 5

area model
common factors
common multiple
composite number
cube number

decimal
dividend
divisibility
formal written method
highest common factor

long multiplication
one thousandth
prime factors
prime number
quotient

short division
square number

YEAR 6

brackets
decimal point
factor tree

long division
operations
order of operations

power of 10
powers
prime factorisation

repeated subtraction

Estimating

RECEPTION

close to
enough/not enough
estimate

guess
how many...?
just under/over

many
nearly
too many/few

YEAR 1

close to
estimate

further away
guess how many

just over
just under

too few
too many

YEAR 2

about
almost
greater than

halfway between
less than
nearer to

round to the nearest ten
round up/down

YEAR 3

approximate(ly)
order

YEAR 4

accurately
approximation
estimation

multiple (of)
place value column
round amounts

round numbers
round to the nearest...
significant digit

YEAR 5

decimal (place)
round to one decimal place
round to the nearest whole number

Probability

YEAR 5

certain
chance
doubt
fair

good chance
impossible
likelihood
likely

no chance
poor chance
possible
probable

risk
uncertain
unfair
unlikely

YEAR 6

biased
equal chance

equally likely
even chance

fifty-fifty chance
random

Reason

YEAR 1

agree
disagree
every other
growing pattern

incorrect
mental/mentally
number sentence
odd one out

predict
put in order
recognise
repeating

pattern
sign
strategy
unequal

YEAR 2

calculate/calculation
complete/completing
cycle
describe the pattern
describe the rule

first I need to...
I know this, so I know/
predict/think that...
it could (not) be...
because...

link/linked
mental calculation
missing
order
prove

repeat/repeating
rule(s)
symbol
then I need to...
written calculation

YEAR 3

category
collection
consecutive terms
eliminate

equation
greatest value
if... then...
in that case...

it will/won't work because...
least value
reasoning
related (facts)

statement
system
unknown number

YEAR 4

commutative
convince
general rule/statement

justify
prove
solve

true/false

YEAR 5

cancels out
conclusion
logic

proof
sequence
summarise

trial and improvement

YEAR 6

algebra
algebraic
expression

finite
formula/formulae
global rule

infinite
notation
 n^{th} term

simplify
substitute
variable

Money

RECEPTION

amount
buy/bought
change
cheap
cheaper

coin(s)
cost
costs less
costs more
costs the same as

money
pay
pence
penny
pound(s)

price
sell
spend

YEAR 1

amount
change
cheap(er)

exchange
how much...?
note

pay
pound(s)
spend/spent

total
value
worth

YEAR 2

fewer
rounding

YEAR 3

afford
budget
less/least expensive

more/most expensive
sum

YEAR 4

half-price
sale
unit of measure

YEAR 5

best value
currency
discount
dollar

euro
exchange rate
loss
overheads

profit
takings

YEAR 6

bank account
bill
deposit
discounted price

gross pay
income tax
mortgage
original price

salary
tax

Geometry

RECEPTION

2D	direction	rectangle(s)	surface
3D	edge	round	symmetrical
circle(s)	face(s)	shape(s)	symmetry
cone	flat	side	triangle
corner(s)	length	solid	wide
cube	lines	sphere	
cuboid	middle	square(s)	
curved	properties of shapes	star	
cylinder	pyramid	straight	

YEAR 1

2D shape(s)	direction	position	square
3D shape(s)	edge	quarter/half/ three-quarter/full turn	square corners
anticlockwise	face	rectangle	star
centre	flat	right	straight (line)
clockwise	hollow	shorter	surface
cone	identical	side	symmetry/symmetrical
corner(s)	left	size	tube
cube	longer	solid	
cuboid	oblong	sphere	
cylinder	point/pointed		

YEAR 2

angle	half	ninety degree turn	rotate/rotating/rotation
anticlockwise	hexagon	octagon	semi circle
arrow	horizontal	pentagon	square prism
circular	line of symmetry	prism	straight line
clockwise	matching/identical/same	rectangular	triangular
curved surface	mirror image	reflect/reflection	vertex/vertices
diagonal	mirror line	right angle	vertical

YEAR 3

acute	irregular	parallel lines	set
attribute	kite	parallelogram	south
centimetre	layer	pentagon	square-based pyramid
compass point	millimetre	pentagonal	trapezium
east	nets	perimeter	tree diagram
grid reference	north	perpendicular	triangular prism
hemi-sphere	obtuse	quadrilateral	venn diagram
heptagon	octagon	regular	west
hexagon	octagonal	rhombus	
hexagonal	orientation	right-angled	
intersect/intersection	parallel	row	

YEAR 4

area
asymmetry
axis/axes
base
boundary
compasses
concave
concave kite
convex
coordinate grid
coordinates

cylindrical
decagon
degree(s)
diameter
dodecagon
equilateral triangle
gridline
irregular quadrilateral
isosceles triangle
line symmetry
midpoint

north-east
north-west
pair of coordinates
radius
right-angled triangle
rim
scalene triangle
set square
south-east
south-west
spherical

square-based
tessellate/tessellation
tetrahedron
three-dimensional
translate/translation
x/y axis
x/y direction
x/y value/coordinate

YEAR 5

1D
angles around a point
angles on a straight line
asymmetric
axis of symmetry
composite
compound shape

dimensions
enlarge
equidistant
exterior
interior
magnitude
octahedron

proportion
protractor
quadrant
ratio
reflective symmetry
reflex angle
regular/irregular polygon

scale drawing
scale factor
scale of 1 to...
transform/transformation
triangular-based pyramid

YEAR 6

altitude
arc
bisect
breadth
circumference
concentric
conservation of area

constant
diameter
dissect
dissection
formula
height
icosahedron

intersecting
pi
plane
platonic solid
point of intersection
radius
reflex

regular polyhedron
sector
square inch/mile/millimetre
surface area
units of area
vertically opposite angles
volume

Data

RECEPTION

sort
sorting

YEAR 1

list
set
sort
table
vote

YEAR 2

bar chart
block graph/diagram
category
graph

interpret
key
label
pictogram

tally chart
title

YEAR 3

axis/axes
Carroll diagram
columns

diagram
frequency
frequency table

representation
rows
Venn diagram

YEAR 4

continuous data
grouped data
interval
line graph

plot
point
range
spread

YEAR 5

average
bar line chart
classify
continuous
cumulative

database
discrete
maximum/minimum value
mode
percentage

pie chart
population
proportion
running total
sample

score
summarise
two-way table
vertical/horizontal axis

YEAR 6

central
data set
distribution
dual bar chart

error
mean
median
mode

outlier
sample size
skewing
statistician

statistics
variation

Measurement

RECEPTION

balance(s)	full/half full	narrow	thick/thicker/thickest
capacity	heavy	near/nearly	thin/thinner/thinest
close	high/highest	quick(ly)	too many/too few
compare	hollow	scales	too much/too little
deep	just over/under	shallow	weigh(s)
empty	light	short/shorter/shortest	weight
enough/not enough	long/longer/longest	size	wide
estimate	low/lowest	slow	
far	mass	small	
fast	measure	tall	

YEAR 1

accurate	half/quarter full	low	shorter/shortest
balance(s)	heavier/heaviest	mass	taller/tallest
capacity	height	measurement	unit (of measure)
contain(s)	higher/highest	narrow	volume
container	length	non-standard unit of measure	weigh(s)/weighing
depth	lesser/least	ruler	wide/wider/widest
distance	lighter/lightest	scale	width

YEAR 2

approximate	further/furthest	mass	thermometer
capacity	gram	measuring (jug/scale)	warm/warmer/warmest
centimetre	graph	metre	weight(s)
cold/colder/coldest	half kilogram	millilitre	
degrees (celsius)	half litre	standard unit of measure	
distance	kilogram	tape measure	
exact	litre	temperature	

YEAR 3

approximately	equivalent	millimetre
centigrade	interval(s)	partition
conversion/convert	kilometre	perimeter
distance from/to	mile	quantity

YEAR 4

array	lap	rate	square metre
breadth	measuring cylinder	side length	square millimetre
convert	metric unit	speed	surface
edge	per	square centimetre	underweight
equivalence	pint	square kilometre	vessel

YEAR 5

constant rate	imperial gallon	pound (lb)
cubic centimetre	imperial units	stone
displace	inch	ton/tonne
foot	metric	volume
gallon	ounce	yard

YEAR 6

approximately equal	cubic metres	one dimensional	radius
base	diameter	part square	ratio
centilitre	equation	perpendicular height	three dimensional
circumference	formula	pi	two dimensional
compasses	layer	precision	variation

Time

RECEPTION

afternoon
afterwards
before
clock
day
during
early
evening
Friday

hands
hour
last
late/later
Monday
morning
next
night
now

o'clock
Saturday
soon
Sunday
takes less time
takes longer
then
Thursday
time

today
tomorrow
Tuesday
watch
Wednesday
week
yesterday

YEAR 1

always
April
August
Autumn
calendar
date
December
earlier
faster/fastest
February
finally
Friday
half past
hour(s)

hour/minute/second hand(s)
January
July
June
later
March
May
midnight
minute(s)
Monday
month(s)
never
new/newer/newest
November

now
October
often
old/older/oldest
once
o'clock
quarter past/to
quick/quicker/quickest
Saturday
seasons
second(s)
September
slow/slower/slowest
sometimes

Spring
stopwatch
Summer
Sunday
Thursday
Tuesday
twice
Wednesday
week
weekend
Winter
year

YEAR 2

analogue
digital
earliest
fortnight
half past

latest
midday
midnight
minutes past/to
noon

o'clock
quarter past
quarter to
time difference

YEAR 3

12 hours
24 hours
a.m./p.m

anticlockwise
arabic numerals
century

leap year
roman numerals
timetable

YEAR 4

centuries
decades
millenium
period

previous
subsequent
timeline

YEAR 6

annual
British Summer Time

Greenwich Mean Time
International Date Line

Fractions & Ratio

RECEPTION

fair share
group

half
halve/halving

parts/parts of a whole
share (out)

sharing
whole

YEAR 1

double
equal parts
fraction

grouping
half/halves
quarter(s)

sharing
three quarters

YEAR 2

denominator
divide
equivalent/equivalence

factor
mixed number
non-unit

numerator
one third
third

two quarters
two thirds
unit

YEAR 3

complements
decimals
eighths
fifths

integer
ninths
non-unit fraction
remainder

sevenths
sixths
tenths
unit fraction

YEAR 4

cancel
common fraction
decimal place
decimal point

equate
hundredths
proportion
set

thousandths
twentieth

YEAR 5

equivalence
improper
mixed numbers
percentage/percent/%
proper

proportion
ratio
reduced to
twelfth

YEAR 6

integer multiplication
missing value
relative size
scale factor
simplify

General

RECEPTION

above
across
around
behind
below
beside
between
bottom
compare
down
every

first, second, third... twentieth
front
in front of
inside
near
next to
on/on top of
opposite
outside
over
sideways

sort
through
top
towards
under/underneath
up
upside down

YEAR 1

arrange
digit cards
hundred square
left

number square
right
ten frame

YEAR 2

investigate
method
number grid

number pairs
operation(s)
predict

represent
sign
tally

YEAR 3

diagram
input
output

YEAR 4

convention
general rule

number range
properties

YEAR 5

area model
general

matching
specific

YEAR 6

algebra
formula
function
identical

jotting
known values
linear sequence
substitute

symbol
typical
vary
variables

Reception

NUMBER

1 less/1 less than
1 more/1 more than
big/bigger/biggest
count (up/down)
from/to
count/counting
count back (from, to)
count in ones
count on (from, to)
count out
difference (between)
double/doubling

doubles
equal(s)
equal amounts/shares
even
few/fewer/fewest
first, second... tenth
five, 5
four, 4
great/greater/greatest
high/higher/highest
how many...?
large/larger/largest

less
more
none
number
number bond
number cards
number facts
number line
number square
number track
odd
one, 1

one, two, three... twenty
pair(s)
part(s)
pattern(s)
repeating pattern(s)
same/same as
ten, twenty... one hundred
ten less/more
the same number as
three, 3
two, 2
zero

PLACE VALUE & ORDER

after
as many as
backwards
between
decrease

digit
first
forwards
increase
last

next
ones
order
partition
parts of a number

size
ten(s)

ADDITION & SUBTRACTION

add
adding
adding more
addition
altogether
and

double
how many fewer is... than...?
how many left/left over?
how many more is... than...?
how many more to make... ?
make

minus
more
one/two/ten less
one/two/ten more
plus
subtract

subtraction
subtracting
sum
take (away)
taking away
total

MULTIPLICATION & DIVISION

each
equal

fair share
group

left over
share (out)

sharing

ESTIMATING

close to
enough/not enough
estimate

guess
how many...?
just under/over

many
nearly
too many/few

MONEY

amount
buy/bought
change
cheap
cheaper

coin(s)
cost
costs less
costs more
costs the same as

money
pay
pence
penny
pound(s)

price
sell
spend

GEOMETRY

2D	direction	rectangle(s)	surface
3D	edge	round	symmetrical
circle(s)	face(s)	shape(s)	symmetry
cone	flat	side	triangle
corner(s)	length	solid	wide
cube	lines	sphere	
cuboid	middle	square(s)	
curved	properties of shapes	star	
cylinder	pyramid	straight	

DATA

sort
sorting

MEASUREMENT

balance(s)	full/half full	narrow	tall
capacity	heavy	near/nearly	thick/thicker/thickest
close	high/highest	quick(ly)	thin/thinner/thinest
compare	hollow	scales	too many/too few
deep	just over/under	shallow	too much/too little
empty	light	short/shorter/	weigh(s)
enough/not enough	long/longer/longest	shortest	weight
estimate	low/lowest	size	wide
far	mass	slow	
fast	measure	small	

TIME

afternoon	hands	o'clock	today
afterwards	hour	Saturday	tomorrow
before	last	soon	Tuesday
clock	late/later	Sunday	watch
day	Monday	takes less time	Wednesday
during	morning	takes longer	week
early	next	then	yesterday
evening	night	Thursday	
Friday	now	time	

FRACTIONS & RATIO

fair share	half	parts/parts of a whole	sharing
group	halve/halving	share (out)	whole

GENERAL

above	first, second, third...	sideways
across	twentieth	sort
around	front	through
behind	in front of	top
below	inside	towards
beside	near	under/underneath
between	next to	up
bottom	on/on top of	upside down
compare	opposite	
down	outside	
every	over	

Year 1

NUMBER

amount
bigger/smaller
count on/back/in
equal to
equivalent to
even

few/fewest
figure
great/greater/greatest
greater than
how many (more)...?
is the same value as

least
most
odd/even
one hundred
ones, twos, fives, tens
order/in order

pair
sequence
smallest

PLACE VALUE & ORDER

after
as many as
base 10
before
compare
fewer
greater/greatest

halfway
hundred square
larger/largest
number(s)
number line
part
part-whole model

partition
smaller/smallest
total
unit(s)
whole

ADDITION & SUBTRACTION

add(ed)
addition
altogether
calculation
combine/combination

difference (between)
equals
fact family
half/halve
how many...?

minus
missing number
near doubles
number bonds/pairs
number sentence

plus
subtract/subtracting
subtraction
take away
total

MULTIPLICATION & DIVISION

array
balances
columns/rows
count in tens
division/divided by

double/doubling/doubled
equal groups
group/groups of
halving
left/left over

lots of
multiple
multiplication
multiplied by
once, twice, three/five times

repeated addition
sharing

ESTIMATING

close to
estimate

further away
guess how many

just over
just under

too few
too many

REASON

agree
disagree
every other
growing pattern

incorrect
mental/mentally
number sentence
odd one out

predict
put in order
recognise
repeating pattern

sign
strategy
unequal

MONEY

amount
change
cheap(er)

exchange
how much...?
note

pay
pound(s)
spend/spent

total
value
worth

GEOMETRY

2D shape(s)	direction	point/pointed	square corners
3D shape(s)	edge	position	star
anticlockwise	face	quarter/half/three	straight (line)
centre	flat	quarter/ full turn	surface
clockwise	hollow/solid	rectangle	symmetry/symmetrical
cone	identical	shorter	tube
corner(s)	left/right	side	
cube	longer	size	
cuboid	middle	sphere	
cylinder	oblong	square	

DATA

list
set
sort
table
vote

MEASUREMENT

accurate	heavier/heaviest	measurement	volume
balance(s)	height	narrow	weigh(s)/weighing
capacity	higher/highest	non-standard unit of measure	wide/wider/widest
contain(s)	length	ruler(s)	width
container	lesser/least	scale	
depth	lighter/lightest	shorter/shortest	
distance	low	taller/tallest	
half/quarter full	mass	unit (of measure)	

TIME

always	hour/minute/second	November	slow/slower/slowest
April	hand(s)	now	sometimes
August	January	October	Spring
Autumn	July	often	stopwatch
calendar	June	old/older/oldest	Summer
date	later	once	Sunday
December	March	o'clock	Thursday
earlier	May	quarter past/to	Tuesday
faster/fastest	midnight	quick/quicker/	twice
February	minute(s)	quickest	Wednesday
finally	Monday	Saturday	week
Friday	month(s)	seasons	weekend
half past	never	second(s)	Winter
hour(s)	new/newer/newest	September	year

FRACTIONS & RATIO

double	grouping	sharing
equal parts	half/halves	three quarters
fraction	quarter(s)	

GENERAL

arrange	number square
digit cards	right
hundred square	ten frame
left	

Year 2

NUMBER

1-digit number
2-digit number
digit
predict

quantity
set
tally
tens

turn
units
value

PLACE VALUE & ORDER

column
decrease
halfway between
higher
hundreds

hundred less/more
increase
interval(s)
lower
multiples of (ten)

ones column
partition
pattern
placeholder
place value

position
recombine
tens column
twenty-first
twenty-second

ADDITION & SUBTRACTION

adding sentence/story
balances/balancing
column(s)
count back

in total
inverse
larger
multiple

number facts
numeral
part-whole model
row

smaller
sum
whole tens

MULTIPLICATION & DIVISION

altogether
balances
combinations
divide
each
equal/unequal
equation

equivalent
group (equally/between)
groups of
inverse
left over
lots of...
multiplication table

part
product
scale up
set
share (equally/between)
signs/symbols
split (equally/between)

times
times table
total
twice as big/small as

ESTIMATING

about
almost
greater than

halfway between
less than
nearer to

round to the nearest ten
round up/down

REASON

calculate/calculation
complete/completing
cycle
describe the pattern
describe the rule

first I need to...
I know this, so I know/
predict/think that...
it could (not) be... because...
link/linked

mental calculation
missing
order
prove
repeat/repeating

rule(s)
symbol
then I need to...
written calculation

MONEY

fewer
rounding

GEOMETRY

angle
anticlockwise
arrow
circular
clockwise
curved surface
diagonal

half
hexagon
horizontal
line of symmetry
matching/identical/same
mirror image
mirror line

ninety degree turn
octagon
pentagon
prism
rectangular
reflect/reflection
right angle

rotate/rotating/rotation
semi circle
square prism
straight line
triangular
vertex/vertices
vertical

DATA

bar chart
block graph/diagram
category
graph

interpret
key
label
pictogram

tally chart
title

MEASUREMENT

approximate
capacity
centimetre
cold/colder/coldest
degrees (celsius)
distance
exact

further/furthest
gram
graph
half kilogram
half litre
kilogram
litre

mass
measuring (jug/scale)
metre
millilitre
standard unit of measure
tape measure
temperature

thermometer
warm/warmer/warmest
weight(s)

TIME

analogue
digital
earliest
fortnight
half past

latest
midday
midnight
minutes past/to
noon

o'clock
quarter past
quarter to
time difference

FRACTIONS & RATIO

denominator
divide
equivalent/equivalence

factor
mixed number
non-unit

numerator
one third
third

two quarters
two thirds
unit

GENERAL

investigate
method
number grid

number pairs
operation(s)
predict

represent
sign
tally

Year 3

NUMBER

3-digit number
factor (of)
fifties

number names to 1000
one thousand
Roman numerals

PLACE VALUE & ORDER

3-digit number(s)
arrange
arrangement

ascending
descending
midpoint

one hundred less/more
pattern
thousand(s)

ADDITION & SUBTRACTION

balances/balancing
bar model
column addition/subtraction

complete
error
function machine

number trio
part-whole model
partition/partitioning

rearrange
regroup
related facts

MULTIPLICATION & DIVISION

bar model
compact method
divided equally
divisor

equal/unequal parts
fact family
grouped equally
half/double the size

how many times bigger/smaller?
part-whole model
partition
quarter/quartering

regroup/regrouping
remain/remains/remaining
remainder
scaling up/down

ESTIMATING

approximate(ly)
order

REASON

category
collection
consecutive terms
eliminate

equation
greatest value
if... then...
in that case...

it will/won't work because...
least value
reasoning
related (facts)

statement
system
unknown number

MONEY

budget
less/least expensive
more/most expensive

rounding afford
sum

GEOMETRY

acute
attribute
centimetre
compass point
east
grid reference
hemi-sphere
heptagon
hexagon
hexagonal
intersect/intersection

irregular
kite
layer
millimetre
nets
north
obtuse
octagon
octagonal
orientation
parallel

parallel lines
parallelogram
pentagon
pentagonal
perimeter
perpendicular
quadrilateral
regular
rhombus
right-angled
row

set
south
square-based pyramid
trapezium
tree diagram
triangular prism
venn diagram
west

DATA

axis/axes
Carroll diagram
columns

diagram
frequency
frequency table

representation
rows
Venn diagram

MEASUREMENT

approximately
centigrade
conversion/convert
distance from/to

equivalent
interval(s)
kilometre
mile

millimetre
partition
perimeter
quantity

TIME

12 hours
24 hours
a.m/p.m

anticlockwise
arabic numerals
century

leap year
roman numerals
timetable

FRACTIONS & RATIO

complements
decimals
eighths
fifths

integer
ninths
non-unit fraction
remainder

sevenths
sixths
tenths
unit fraction

GENERAL

diagram
input
output

Year 4

NUMBER

4-digit number
classify
consecutive
decimal
decimal number

decimal place
decimal point
horizontal
hundredths
increasing/decreasing

integer
magnitude
minus
negative numbers
number range

positive numbers
ten thousand
tenths
whole number

PLACE VALUE & ORDER

4-digit number
classify
consecutive
decimal
decimal number

decimal place
decimal point
horizontal
hundredths
increasing/decreasing

integer
magnitude
minus
negative numbers
number range

positive numbers
ten thousand
tenths
whole number

ADDITION & SUBTRACTION

column method/calculation
complements

not equal to
regrouping

rounding
zero as a place holder

MULTIPLICATION & DIVISION

... times bigger/smaller
common multiples
derive
divisible by...

factor pair
fraction
hundred square
lowest common multiple

multiples
ratio
related facts
square/squared

times table square
triple

ESTIMATING

accurately
approximation
estimation

multiple (of)
place value column
round amounts

round numbers
round to the nearest...
significant digit

REASON

commutative
convince
general rule/statement
justify

prove
solve
true/false

MONEY

half-price
sale
unit of measure

GEOMETRY

area
asymmetry
axis/axes
base
boundary
compasses
concave
concave kite
convex
coordinate grid
coordinates

cylindrical
decagon
degree(s)
diameter
dodecagon
equilateral triangle
gridline
irregular quadrilateral
isosceles triangle
line symmetry
midpoint

north-east
north-west
pair of coordinates
radius
right-angled triangle
rim
scalene triangle
set square
south-east
south-west
spherical

square-based
tessellate/tessellation
tetrahedron
three-dimensional
translate/translation
x/y axis
x/y direction
x/y value/coordinate

DATA

continuous data
grouped data
interval
line graph

plot
point
range
spread

MEASUREMENT

array
breadth
convert
edge
equivalence

lap
measuring cylinder
metric unit
per
pint

rate
side length
speed
square centimetre
square kilometre

square metre
square millimetre
surface
underweight
vessel

TIME

centuries
decades
millennium
period

previous
subsequent
timeline

FRACTIONS & RATIO

cancel
common fraction
decimal place
decimal point

equate
hundredths
proportion
set

thousandths
twentieths

GENERAL

convention
general rule

number range
properties

Year 5

NUMBER

cubed
cubed number
divisible/divisibility

factor pair
formula
hundred thousand

one million
prime number
squared

square number
 \leq less than or equal to
 \geq greater than or equal to

PLACE VALUE & ORDER

5-digit number(s)
hundred thousand

part-whole relationship
power(s) of 10

ten times
thousandths column

thousand times

ADDITION & SUBTRACTION

bridging
decimals

inefficient writing method
integers

inverse relationship
quantity value

tenths boundary
units boundary

MULTIPLICATION & DIVISION

area model
common factors
common multiple
composite number
cube number

decimal
dividend
divisibility
formal written method
highest common factor

long multiplication
one thousandth
prime factors
prime number
quotient

short division
square number

ESTIMATING

decimal (place)
round to one decimal place
round to the nearest whole number

PROBABILITY

certain
chance
doubt
fair

good chance
impossible
likelihood
likely

no chance
poor chance
possible
probable

risk
uncertain
unfair
unlikely

REASON

cancels out
conclusion
logic
proof

sequence
summarise
trial and improvement

MONEY

best value
currency
discount
dollar

euro
exchange rate
loss
overheads

profit
takings

GEOMETRY

1D
angles around a point
angles on a straight line
asymmetric
axis of symmetry
composite
compound shape

dimensions
enlarge
equidistant
exterior
interior
magnitude
octahedron

proportion
protractor
quadrant
ratio
reflective symmetry
reflex angle
regular/irregular polygon

scale drawing
scale factor
scale of 1 to...
transform/ transformation
triangular-based pyramid

DATA

average
bar line chart
classify
continuous
cumulative

database
discrete
maximum/minimum
value
mode

percentage
pie chart
population
proportion
running total

sample
score
summarise
two-way table
vertical/horizontal axis

MEASUREMENT

constant rate
cubic centimetre
displace
foot
gallon

imperial gallon
imperial units
inch
metric
ounce

pound (lb)
stone
ton/tonne
volume
yard

FRACTIONS & RATIO

equivalence
improper
mixed numbers
percentage/percent/%
proper

proportion
ratio
reduced to
twelfth

GENERAL

area model
general

matching
specific

Year 6

NUMBER

digit total
factorise
figures

prime
prime factor
zero

NUMBER

digit total
factorise
figures

prime
prime factor
zero

PLACE VALUE & ORDER

7-digit number
hundred thousand column
millions column

one million
scale interval
ten million

ten thousand column
zero

ADDITION & SUBTRACTION

above/below zero
brackets
negative

order of operations
positive

MULTIPLICATION & DIVISION

brackets
decimal point
factor tree

long division
operations
order of operations

power of 10
powers
prime factorisation

repeated subtraction

PROBABILITY

biased
equal chance
equally likely

even chance
fifty-fifty chance
random

REASON

algebra
algebraic
expression

finite
formula/formulae
global rule

infinite
notation
 n^{th} term

simplify
substitute
variable

MONEY

bank account
bill
deposit
discounted price

gross pay
income tax
mortgage
original price

salary
tax

GEOMETRY

altitude
arc
bisect
breadth
circumference
concentric
conservation of area
constant

diameter
dissect
dissection
formula
height
icosahedron
intersecting
pi

plane
platonic solid
point of intersection
radius
reflex
regular polyhedron
sector
square inch/mile/millimetre

surface area
units of area
vertically opposite angles
volume

DATA

central
data set
distribution
dual bar chart

error
mean
median
mode

outlier
sample size
skewing
statistician

statistics
variation

MEASUREMENT

approximately equal
base
centilitre
circumference
compasses

cubic metres
diameter
equation
formula
layer

one dimensional
part square
perpendicular height
pi
precision

radius
ratio
three dimensional
two dimensional
variation

TIME

annual
British Summer Time
Greenwich Mean Time
International Date Line

FRACTIONS & RATIO

integer multiplication
missing value
relative size

scale factor
simplify

GENERAL

algebra
formula
function
identical

jotting
known values
linear sequence
substitute

symbol
typical
vary
variables

Glossary

NUMBER

amount

An amount is the total quantity of a set of items.

classify

To classify data is to put data into groups or sets so it can be sorted and interpreted.

count

to count is to use numbers to find out how many people or things are in a place

cubed number

The cube of a number is the number multiplied by itself twice. The cube of four is $4 \times 4 \times 4$.

decimal

a decimal system uses tens or tenths to count things

decimal point

the dot in a decimal fraction

difference

The difference between two numbers is the value of how much one is greater than the other. It can be found by subtracting the smallest number from the largest, or by counting on from the smallest to the largest.

digit

There are ten digits. They are 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. These digits are used to build up other numbers.

double

Double is twice as many.

equal

Two things are equal if they are the same in some way. Numbers or calculations are equal when they are worth the same. The symbol for equal to is =.

even

able to be divided exactly by two

factor

A factor is a whole number that will divide exactly into another number.

factorise

To factorise a number is to write that number as the product of its factors. This is helpful for carrying out mental calculations.

figure

A figure is a number used to write an integer.

formula

A formula is a rule that tells you how to work something out based on certain values. A formula can be given in words or using letters and symbols.

function machine

A function is a rule given to a set of numbers (the input) that changes those numbers (the output). The relationship between input and output numbers is kept the same for any numbers used.

integer

An integer is any whole number. An integer can be a positive or a negative number. Zero is also an integer.

less

a smaller amount; minus

more

a larger number or amount

negative number

less than zero; minus

numeral

A numeral is any symbol or word for a number

odd

an odd number is any whole number that cannot be divided by 2 exactly and will leave a remainder. An odd number is a whole number that is not even.

pair

A pair is two of anything.

pattern

A pattern is an arrangement of numbers, lines or shapes that follows a rule.

prime number

A prime number has only two factors which are 1 and itself. One is not a prime number because it only has one factor not two.

quantity

A quantity is the total number or amount of items. It can usually be measured or counted.

Roman numerals

The Romans used letters to stand for numbers. They used letters to stand for 1, 5, 10, 50, 100, 500 and 1,000.

sequence

A sequence is a set of numbers usually written in a line.

set

A set is a collection of numbers, shapes or objects that have something in common.

square number

A square number is the product of two identical whole numbers. When a number is squared it is multiplied by itself.

tally

A tally is a mark which shows how often something happens.

unit

Unit is a name for 'one'. Hundreds, tens and units or ones are used in place value.

PLACE VALUE & ORDER

ascending

Ascending means going up or increasing in size.

column

A column of numbers is written vertically.

decimal point

the dot in a decimal fraction

decrease

When you decrease something you make it less or smaller.

descending

Descending means going down or reducing in size.

digit

There are ten digits. They are 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. These digits are used to build up other numbers.

increase

When you increase something you make it more or larger.

interval

An interval is the amount of time or space between two things.

numeral

A numeral is any symbol or word for a number

partition

When a number is partitioned it is separated into different parts. Partitioning is the act of separating a set into subsets.

place value

separating numbers into ones, tens, hundreds and thousands values

power

You read 3^4 as 3 to the power of 4. It means $3 \times 3 \times 3 \times 3$. The power shows how many equal numbers have been multiplied together. A number to the power of 2 is said to be squared. A number to the power of 3 is said to be cubed.

round

Rounding is writing a number as an approximate. Numbers are often rounded to the nearest one, nearest ten or nearest hundred. Rounding often means rounding up or rounding down to the nearest whole number.

total

A total is found by adding all the numbers together. A total is the sum of numbers.

unit

Unit is a name for 'one'. Hundreds, tens and units or ones are used in place value.

whole

all of something

ADDITION & SUBTRACTION

add

to add one number to another is to put them together to get a bigger number

addition

Addition is combining two or more numbers together to make a new number called the sum. The symbol for addition is +. This is called the plus sign.

bar model

A representation of a problem using rectangle bars or boxes to help make sense of the problem.

calculation

A calculation is when you have to work out the answer to a number problem.

column method

Written method for adding, subtracting multiplying or dividing in which numbers are written in columns according to their value.

complement

A complement is what is needed to make something complete.

decimal

a decimal system uses tens or tenths to count things

difference

The difference between two numbers is the value of how much one is greater than the other. It can be found by subtracting the smallest number from the largest, or by counting on from the smallest to the largest.

integer

An integer is any whole number. An integer can be a positive or a negative number. Zero is also an integer.

inverse

Inverse means reversing something. Addition and subtraction are inverse operations. Multiplication and division are also inverse operations. The inverse undoes the previous calculation.

minus

Minus is the name for the subtraction symbol -.

plus

Plus is the name for the addition symbol +.

subtract

To subtract is to take one number away from another.

subtraction

Subtraction is taking away one number from another. Subtraction gives you the difference between two numbers. It is the inverse of addition. The sign for subtraction is -. This is called the minus sign.

sum

The sum is the result of adding two or more numbers.

take away

To take away is to subtract or remove a number from an amount.

total

A total is found by adding all the numbers together. A total is the sum of numbers.

ESTIMATING

approximate

An approximate number or measurement is near enough the exact answer. Similar words to approximate are nearly, round about and near enough.

estimate

When you make an estimate you judge the amount without measuring or calculation. A guess is different to an estimate. When you guess you do not have any idea of the answer.

round

Rounding is writing a number as an approximate. Numbers are often rounded to the nearest one, nearest ten or nearest hundred. Rounding often means rounding up or rounding down to the nearest whole number.

PROBABILITY

biased

bias is a strong feeling in favour of one person or side and against another

certain

something is certain when it is definitely true or is going to happen

doubt

To doubt something is to feel unsure about it.

impossible

not possible

likelihood

the chance of something happening

likely

probable

probable

If something is probable it will most likely happen. It might not happen but the chances are that it will.

random

random means purely by chance. If you choose a number at random you pick any number that you wish. Random numbers do not have an order.

unlikely

not likely to happen or be true

MULTIPLICATION & DIVISION

array

An array is an arrangement of numbers or objects into a rectangle. The rows and columns of an array are used to help work out totals in multiplication problems.

bar model

A representation of a problem using rectangle bars or boxes to help make sense of the problem.

common factor

A whole number that divides into two or more other numbers exactly, e.g. 3 is a common factor of 6, 9 and 12.

composite

Any positive whole number that is not a prime number.

cubed number

The cube of a number is the number multiplied by itself twice. The cube of four is $4 \times 4 \times 4$.

divide

When you divide you share things equally or group a quantity into a number of equal parts. To divide a number by another number is to find out how many times the second number is contained in the first. The symbol for 'divided by' is \div .

dividend

When you divide one number into another, the dividend is the number that has to be divided.

divisible

One number is divisible by another number if the remainder is zero.

division

Division is grouping into sets of the same size.

divisor

When you divide one number into another, the divisor is the number that is divided into the other.

double

Double is twice as many.

equation

An equation has two parts separated by an equal sign. The left part of an equation is always worth the same as the right part.

equivalent

Equivalent means worth the same. Equivalent things may look different but they always have the same value.

factor

A factor is a whole number that will divide exactly into another number.

factorise

To factorise a number is to write that number as the product of its factors. This is helpful for carrying out mental calculations.

halve

If you halve something you divide it into two equal pieces. Halving a number is the same as dividing it by 2.

multiple

A multiple is a number that contains another number (a factor) an exact amount of times with no remainder. 12 is a multiple of 3 as it is made up of four 3s ($3 \times 4 = 12$). Multiples are like multiplication tables.

multiplication

Multiplication is adding lots of the same number together. The symbol for multiplication is \times .

multiply

When you multiply something you increase it a number of times. Multiplying refers to the same operation as multiplication.

operation

An operation is when you change a number by adding, subtracting, multiplying or dividing. The operation symbols are $+$, \times and \div .

partition

When a number is partitioned it is separated into different parts. Partitioning is the act of separating a set into subsets.

prime number

A prime number has only two factors which are 1 and itself. One is not a prime number because it only has one factor not two.

product

The product is the answer you get by multiplying numbers together.

quotient

The quotient is the answer to a division. A quotient can be a whole number, fraction, mixed number or decimal.

remainder

A remainder is what is left after you share something. In division, the remainder is the amount that is left over when you divide one number into another. The short way of writing remainder is r .

share

When you share you divide things equally. Sharing is the same as dividing. The symbol for sharing is \div .

square number

A square number is the product of two identical whole numbers. When a number is squared it is multiplied by itself.

REASON

algebra

Algebra is the branch of mathematics that uses symbols or letters to represent numbers.

algebraic

An algebraic equation or formula is one that uses algebra.

commutative

When adding or multiplying 2 numbers, the answer will be the same no matter which order the numbers are in, e.g. $2 + 4 = 6$ and $4 + 2 = 6$, $2 \times 6 = 12$ and $6 \times 2 = 12$.

consecutive term

Consecutive means one after the other in a regular order.

equation

An equation has two parts separated by an equal sign. The left part of an equation is always worth the same as the right part.

finite

limited; not infinite

formula/formulae

A formula is a rule that tells you how to work something out based on certain values. A formula can be given in words or using letters and symbols.

infinite

endless

justify

When trying to prove or disprove an argument or idea, you justify your reasoning by providing good evidence to support it.

pattern

A pattern is an arrangement of numbers, lines or shapes that follows a rule.

sequence

A sequence is a set of numbers usually written in a line.

simplify

To simplify you write something in a more simple way. Fractions are written in the simplest way when both numerator and denominator are as small as possible.

substitute

to substitute one thing or person for another is to use the first one instead of the second

variable

A variable is an unknown number in an equation that can take different values, usually shown by a symbol or letter.

MONEY

amount

An amount is the total quantity of a set of items.

budget

the money someone plans to spend on something

change

your change is the money you get back when you give more money than the price of something you are buying, for example if you don't have the right money

coin

A coin is money made from metal. Money is also made from paper and called notes. Coins are usually worth less than notes.

cost

to cost a certain amount is to have that amount as its price

currency

Currency is the money that is used in each country.

discount

A discount is a reduction in the cost of something. You often get a discount for paying early or buying in large quantities.

exchange rate

The exchange rate is the value of a currency when it is exchanged to the currency of another country.

penny

A penny is a coin and unit of money in the UK. There are 100 pence (100p) in one pound (£1). The short way of writing penny is p.

pound

A pound is a unit of money in the UK, equal to 100 pennies. The symbol for pound is £.

profit

Profit is what you make when you sell something for more than you paid for it. The profit is the difference between the buying and selling prices.

value

The value of something is what it is worth.

GEOMETRY

2D

having two dimensions: length and width

3D

having three dimensions: length, width and height or depth

acute

An acute angle is an angle that is less than a right angle. It is any angle between 0° and 90° .

angle

An angle is an amount of turn. Angles can be measured in degrees.

anticlockwise

Anticlockwise means turning the opposite way to the hands of a clock.

arc

part of the circumference of a circle, a curve

bisect

When you bisect something, you cut it in half.

circle

A circle is a 2D shape that is completely round. Different parts of a circle have special names.

circumference

the line or distance round something, especially round a circle

clockwise

Clockwise means turning the same way as the hands of a clock.

concave

Concave means curved inwards like a cave.

concentric

Shapes that are concentric have a centre that is in common. A bullseye target is made up of concentric circles.

cone

A cone has a flat base that is a circle. The top comes to a point and its sides are curved.

convex

Convex means curved outwards.

coordinates

Coordinates are two numbers or letters that describe a position on maps, graphs and charts. The horizontal coordinate is always written first and the vertical coordinate is always written second.

cube

A cube is a 3D shape with six square faces. A cube has six faces, eight vertices and 12 edges.

cuboid

A cuboid is a 3D shape shaped like a box, with six rectangular faces. A cuboid has six faces, eight vertices and 12 edges.

cylinder

A cylinder is a 3D shape shaped like a roller. It has two flat faces and one curved surface. Cross-sections of a cylinder, parallel to the base, or its flat faces, are all identically sized circles.

decagon

A decagon is any 2D shape that has 10 straight sides. If all the sides and angles are the same size it is a regular decagon.

degree

Degree ($^\circ$) is a unit used to measure the size of angles. A complete turn measures 360° .

diameter

a line drawn from one side of a circle to the other, passing through the centre

dodecagon

A dodecagon is any 2D shape that has 12 straight sides. A regular dodecagon has all its sides and angles equal.

edge

The edge of a shape is where two faces meet. An edge can be straight or curved.

equilateral triangle

An equilateral triangle has all its sides the same length. Each of its three angles is also the same.

face

A face is the side of a solid shape. It usually means flat faces. The base of a shape is also a face.

heptagon

A heptagon is any polygon that has seven straight sides. In a regular heptagon all the sides and angles are equal.

hexagon

A hexagon is any polygon that has six straight sides. In a regular hexagon all the sides and angles are equal.

icosahedron

An icosahedron is a 3D shape that has 20 flat faces. A regular icosahedron has 20 faces that are identical equilateral triangles.

intersect

Lines intersect when they cross each other. Intersecting lines can be straight or curved.

isosceles triangle

An isosceles triangle has two sides that are the same length. Two angles are also equal.

kite

A kite is a four-sided polygon. It has two pairs of adjacent sides that are the same length. A regular polygon also has a pair of angles that are the same.

line of symmetry

A line of symmetry divides a shape in half. One half is the reflection of the other half. The line of symmetry is the same as a mirror line. Some shapes have no lines of symmetry while others have one or more.

net

An arrangement of 2D polygons that can be folded up to make a complete 3D polyhedron.

oblong

An oblong is a shape that is longer than it is wide. Rectangles can be oblongs.

obtuse

An obtuse angle measures between 90° and 180° .

octagon

An octagon is any polygon that has eight straight sides. In a regular octagon all the sides and angles are equal.

octahedron

An octahedron is any solid shape that has eight flat faces. A regular octahedron has eight equilateral triangle faces.

parallel

Parallel lines are the same distance apart no matter how long they are. Parallel lines can never cross each other.

parallelogram

A parallelogram is a four-sided shape that has its opposite sides parallel to each other.

pentagon

A pentagon is any 2D shape with five straight sides. A regular pentagon has all its sides and angles the same.

perpendicular

Two things are perpendicular when they meet at right angles.

pi

Pi is slightly bigger than 3. It is the number you get when you divide the circumference of a circle by its diameter. This always comes to the same number. Pi is approximately 3.142 or 227. The symbol for pi is π .

polyhedron

A polyhedron is any 3D shape made from polygons. Some polyhedra have special names such as cube, pyramid or tetrahedron. Polyhedra have faces, edges and vertices.

prism

A prism is a solid shape with matching ends that are polygons. The cross-section, parallel to the base, of a prism is always the same shape. A prism is also a polyhedron. Cubes and cuboids are special types of prism. The shape of the base gives the prism its name.

quadrilateral

A quadrilateral is any polygon that has four sides. The four angles of a quadrilateral add up to 360° .

radius

a straight line from the centre of a circle to the circumference

rectangle

A rectangle is a 2D shape that has four straight sides and four right angles. The opposite sides of a rectangle are equal. A square is a special type of rectangle because all 4 sides are the same length. The word rectangle is usually used to mean the oblong rectangle.

reflex angle

A reflex angle is an angle that is between 180° and 360° .

rhombus

A rhombus has four equal sides. The opposite sides are parallel. It is the correct name for a diamond shape.

right angle

A right angle is a quarter of a complete turn. It measures 90° .

scalene triangle

A scalene triangle has no sides the same length. All its angles are a different size.

side

Some 2D shapes have sides. The sides can be straight or curved.

solid

A solid figure is any shape that has a length, width and height. A solid has three dimensions. Not all solids have flat faces.

sphere

A sphere is a perfectly round shape like a ball.

square

A square is a regular polygon. It is a quadrilateral with its four sides and angles the same size.

star

A star can have four or more points. Extending the sides of a regular polygon will make a star. Stars are also polygons.

surface

A surface is the face on a shape. It has length and width but no thickness. A surface can be flat or curved.

surface area

The area of a shape is how much surface it has. Area is measured in square units such as square centimetres (cm^2), square metres (m^2) and square kilometres (km^2).

symmetry

A shape has symmetry when two or more of its parts are matching shapes. There are different types of symmetry. Plane shapes can be symmetrical about a line or have rotational symmetry about a point. Solid shapes can have symmetry about a plane or an axis.

tessellate

When you tessellate, you fit shapes together into a pattern without leaving any gaps between the shapes. Triangles and quadrilaterals will always tessellate.

tetrahedron

A tetrahedron is a solid shape with four sides. Each side is a triangle. The regular tetrahedron has faces that are equilateral triangles.

translate

If you translate a shape you slide it to a different position. You do not turn or rotate the shape.

trapezium

A trapezium is a four-sided shape that has one pair of sides that are parallel. The other two sides are not parallel.

triangle

A triangle is a polygon that has three sides. The three angles of a triangle add up to 180° . All triangles will tessellate. The words equilateral, isosceles and scalene tell you about the sides of a triangle. The words acute, obtuse, and right-angled tell you about the angles of a triangle.

triangular prism

A triangular prism is a prism that has triangular ends. The end can be any type of triangle.

venn diagram

A Venn diagram is used for sorting sets of things.

vertex

A vertex is a point at which two or more lines meet in an object or a shape.

DATA

axis

Many graphs have two axes: a horizontal axis and a vertical axis.

bar chart

A bar chart (or bar graph) is a graph that uses bars to show information. The bars are all the same thickness and can be horizontal or vertical. The bars usually show two different types of information. For example, to show how many animals there are, the bars can have names listed on the x-axis and numbers on the y-axis. Vertical bar charts or bar graphs are also called column graphs.

carroll diagram

A Carroll diagram is used for sorting. One part of the diagram is the opposite of the other. Carroll diagrams are named after the author, Lewis Carroll.

classify

To classify data is to put data into groups or sets so it can be sorted and interpreted.

database

A database is a large amount of information often stored in a computer. You can use the database to sort the information in different ways.

frequency

Frequency is how often something happens.

graph

A graph is a picture, chart or diagram showing information about things.

mean

Mean is a kind of average. To find the mean, total the quantities then divide by the number of quantities.

median

Median is a kind of average. To find the median, write out the quantities in order. The median is the quantity that has the middle value.

mode

Mode is a kind of average. The mode is the quantity or number that occurs most often.

pictogram

In a pictogram pictures are used to stand for quantities. A picture can stand for one thing or a number of things. Pictograms can also be called pictographs or picture graphs.

pie chart

In a pie chart information is shown as a circle. The different-sized sectors or slices of the pie chart stand for the different quantities they represent. For example, the slices of a pie chart can represent the percentage of people ordering different types of dessert in a restaurant.

proportion

A scale model is in proportion to the real thing. With a scale of one fifth everything on the model would be one fifth of the real thing. Maps are in proportion to the real measurements on the ground.

range

The range is the difference between the smallest value and the largest value. You often need to know the range when you are finding averages.

table

When information is written in a list in rows and columns, it is often called a table. Multiplication facts written in order are called the multiplication tables.

tally chart

A way to record counting by making marks on a chart.

venn diagram

A Venn diagram is used for sorting sets of things.

x axis

The horizontal axis of a graph is called the x-axis.

y axis

The vertical axis of a graph is called the y-axis.

MEASUREMENT

area

The area of a shape is how much surface it has. Area is measured in square units such as square centimetres (cm²), square metres (m²) and square kilometres (km²).

array

An array is an arrangement of numbers or objects into a rectangle. The rows and columns of an array are used to help work out totals in multiplication problems.

capacity

Capacity is how much something holds. It is usually measured in litres and millilitres.

centigrade

Centigrade is a scale used to measure temperature. It is the same scale as Celsius (°C) which is now used instead of centigrade.

centimetre

A centimetre is one hundredth of a metre. There are 10 millimetres in 1 centimetre. Centi- at the start of a word usually means 'one hundredth'.

deep

Deep is how far down or back something goes. For example, water can be deep and so can a cave.

degrees celsius

Celsius is a scale used to measure temperature. It is written as degrees Celsius (°C). It is named after the Swedish scientist Anton Celsius. It has replaced the Centigrade scale.

gallon

A gallon is an imperial unit used to measure capacity. A gallon is divided into eight parts called pints. A gallon measures about 412 litres.

gram

Grams are metric units of mass used to weigh things. There are 1000 grams in a kilogram. One gram is very light. The short way of writing gram is g.

hollow

A shape that has nothing inside is hollow.

imperial unit

an imperial unit or measure is a non-metric one such as a gallon, ounce or yard

inch

An inch is an imperial unit used to measure length. Twelve inches measure the same as one foot. An inch measures about 212 cm.

kilogram

A kilogram is a metric unit of mass used for weighing. There are 1,000 grams in 1 kilogram.

kilometre

A kilometre is a metric unit of length used to measure long distances. There are 1,000 m in 1 km.

litre

A litre is a metric unit used to measure capacity or volume. It is usually used for measuring liquids. The short way of writing litre is l.

mass

Mass is the amount of matter or material in an object. An elephant has more mass than a cat. Mass and weight are closely linked but are not the same. Weight is the measurement of the force of gravity on an object and is related to its mass. Metric units of mass are grams, kilograms and tonnes.

measure

A measure is the size of something using a measuring unit. The measuring units are usually metric or imperial.

metre

A metre is a metric unit used to measure length or distance. The short way of writing metre is m.

metric unit

a unit of mass or weight in the metric system

mile

A mile is an imperial unit used to measure long distances. The distance got its name from the Latin mille passus which meant a thousand paces. It takes about 15 minutes to walk 1 mile. 1 mile is approximately 1,600 m.

millilitre

A millilitre is a metric unit used to measure a small capacity or volume. There are 1,000 millilitres in 1 litre. A teaspoon holds about 5 ml.

millimetre

A millimetre is a metric unit used to measure a small length or distance. There are 1,000 mm in 1 m. The short way of writing millimetre is mm.

ounce

An ounce is an imperial unit of weight or mass. The short way of writing ounce is oz. 1 oz is about 28 g.

perimeter

The perimeter is the distance all the way around a shape. You can calculate the perimeter of 2D shapes by adding together the length of the lines that make up the shape. For a circle, the perimeter is its circumference.

pint

A pint is an imperial unit used to measure capacity. Eight pints make a gallon. A pint is about half a litre. A litre is about 134 pints.

pound

A pound is an imperial unit of weight or mass. The short way of writing pound is lb. A pound is divided into 16 ounces. A one-pound weight is about 450 grams. A kilogram is about 2.14 pounds.

scale

A scale is a set of points on a line used for measuring. You can see a scale on maps, thermometers, measuring jugs or rulers.

shallow

If something is shallow it does not go down or back a long way.

stone

A stone is an imperial unit used to measure weight or mass. A stone weighs about 6 kilograms. Stones used to be the unit used to weigh people.

ton

A ton is an imperial unit used to measure mass or weight. It is a very heavy weight weighing about 1,000 kg.

volume

Volume is the amount of space taken up by a solid shape. When measuring volume, cubic units such as cm^3 and m^3 are used.

weigh

You weigh something to find out how heavy it is. To weigh something you use a balance or scales.

weight

Weight is the heaviness of something. Weight is the force with which an object is pulled towards the centre of the Earth. The word weight is often used instead of mass although they are not quite the same.

yard

A yard is an imperial unit used to measure distance. There are three feet in one yard. A yard is about 90 cm.

TIME

analogue

Analogue clocks and watches have hands that tell the time.

British Summer Time

British Summer Time (BST) is the period of time between March and October when clocks are put forward by 1 hour in the UK.

century

A century is a set of one hundred. A century is 100 years.

decade

A decade is a period of 10 years.

digital

a digital clock or watch has a row of digits to indicate numbers

fortnight

a period of two weeks

Greenwich Mean Time

Greenwich Mean Time (GMT) is a standard time measured at the Prime Meridian at the Royal Observatory in Greenwich, London.

midday

Midday is the middle of the day. It is another name for noon. Midday happens 12 hours after midnight. Midday is the time when a.m. times become p.m. times.

midnight

Midnight is the middle of the night. Midnight happens 12 hours after midday. Midnight is the time when p.m. times become a.m. times. Using a 24 hour clock midnight is 24:00 or 00:00; both these are correct.

o'clock

used after the number of the hour when you are saying what time it is

FRACTIONS & RATIO

denominator

The bottom number of a fraction is called the denominator. The denominator tells you how many equal parts the quantity or shape has been divided into.

fraction

Fractions are usually parts of something. The bottom part of a fraction is called the denominator. It tells you the number of equal parts. The top part is the numerator. It tells you the number of those parts you are dealing with.

half

A half is one of two equal parts. You can find half of a shape, quantity or number.

halve

If you halve something you divide it into two equal pieces. Halving a number is the same as dividing it by 2.

hundredth

One-hundredth is a fraction showing a whole divided into 100 equal parts.

improper fraction

An improper fraction has a numerator larger than its denominator. It is a fraction that is worth more than one.

mixed number

A number written as a whole number and a fraction.

non-unit fraction

A non-unit fraction is any common fraction with a numerator that is greater than 1. Each non-unit fraction shows more than one part of a whole divided into equal parts.

numerator

The top number of a fraction is called the numerator. The numerator tells you how many equal parts there are.

percentage

A percentage is a number which tells you how many are in each hundred. A percentage is another way of writing a fraction that has a denominator of 100.

proper

A proper fraction is when the numerator is smaller than the denominator. It is a fraction worth less than 1.

proportion

Numbers can be in proportion. 2 and 6 are in the same proportion as 5 and 15 because in each pair the first number is a third of the second number.

quarter

A quarter is one of four equal parts. You can find a quarter of a shape, quantity or number. Two quarters is the same as a half.

ratio

A ratio is a way of comparing one quantity to another. The sign for ratio is :.

remainder

A remainder is what is left after you share something. In division, the remainder is the amount that is left over when you divide one number into another. The short way of writing remainder is r.

whole

all of something