Vocabulary checklist

Year 7

This list contains the key words used in the Year 7 teaching programme and supplement of examples. Some words will be familiar to pupils in Year 7 from earlier work. For definitions of the words you will need to refer to a mathematical dictionary or to the National Curriculum glossary on the QCA website at www.qca.org.uk.

Applying mathematics and solving problems

answer
evidence
explain
explore
investigate
method
problem
reason, reasons
results
solution (of a problem)
solve
true, false

Numbers and the number system

Place value, ordering and rounding

approximate, approximately
approximately equal to ($\approx$)
between
compare
decimal number
decimal place
digit
equals (=)
greater than (>), less than (<)
greatest value, least value
most/least significant digit
nearest
order
place value
round
tenth, hundredth, thousandth
to one decimal place (to 1 d.p.)
value
zero place holder

Integers, powers and roots

classify
common factor
consecutive
divisible, divisibility
divisor
factor
factorise
highest common factor (HCF)
integer
lowest common multiple (LCM)
multiple
negative (e.g. $^-6$)
plus, minus
positive (e.g. $^+6$)
prime
prime factor
property
sign
square number, squared
square root
triangular number

Fractions, decimals, percentages, ratio and proportion

cancel, cancellation
convert
decimal fraction
equivalent, equivalence
fraction
lowest terms
mixed number
numerator, denominator
percentage (%)
proper/improper fraction
proportion
ratio, including notation 3 : 2
simplest form

Calculations

add, addition

amount

brackets

calculate, calculation

calculator: clear, display, enter, key, memory,

change (money)

commutative

complements (in 10, 100)

currency

difference

discount

divide, division

double, halve

estimate

exact, exactly

exchange rate

factor

increase, decrease

inverse

multiply, multiplication

nearly

operation

order of operations

partition

product

quotient

remainder

rough, roughly

sale price

sign

subtract, subtraction

sum

total

Algebra

Equations, formulae and identities

algebra

brackets

commutative

equals (=)

equation

expression

evaluate

prove

simplify, simplest form

solution (of an equation)

solve (an equation)

squared

substitute

symbol

term

therefore ($\therefore$)

unknown

value

variable

verify

Sequences, functions and graphs

axis, axes

consecutive

continue

coordinate pair

coordinate point

coordinates

equation (of a graph)

finite, infinite

function

function machine

generate

graph

increase, decrease

input, output

mapping

nth term

origin

predict

relationship, rule

sequence

straight-line graph

term

x-axis, y-axis

x-coordinate, y-coordinate

Shape, space and measures

Geometrical reasoning: lines, angles and shapes

adjacent (side)

angle: acute, obtuse, right, reflex

angles at a point

angles on a straight line

base (of plane shape or solid)

base angles

centre

circle

concave, convex

degree (°)

diagonal

diagram

edge (of solid)

equal (sides, angles)

face

horizonal, vertical

identical (shapes)

intersect, intersection

line, line segment

opposite (sides, angles)

parallel

perpendicular

plane

point

polygon: pentagon, hexagon, octagon

quadrilateral: arrowhead, delta, kite, parallelogram, rectangle, rhombus, square, trapezium

regular, irregular

shape

side (of 2-D shape)

solid (3-D) shape: cube, cuboid, cylinder, hemisphere, prism, pyramid, square-based pyramid, sphere, tetrahedron

three-dimensional (3-D)

triangle: equilateral, isosceles, scalene, right-angled

two-dimensional (2-D)

vertex, vertices

vertically opposite angles

Transformations

axis of symmetry

centre of rotation

congruent

line of symmetry

line symmetry

mirror line

object, image

order of rotation symmetry

reflect, reflection

reflection symmetry

rotate, rotation

rotation symmetry

symmetrical

transformation

translate, translation

Coordinates

axis, axes

coordinates

direction

grid

intersecting, intersection

origin

position

quadrant

row, column

x-axis, y-axis

x-coordinate, y-coordinate

Construction and loci

construct

draw

measure

net

perpendicular

protractor (angle measurer)

ruler

set square

sketch

Measures and mensuration

area: square millimetre, square centimetre, square metre, square kilometre

capacity: millilitre, centilitre, litre; pint, gallon

length: millimetre, centimetre, metre, kilometre; mile

mass: gram, kilogram; ounce, pound

time: second, minute, hour, day, week, month, year, decade, century, millennium

temperature: degrees Celsius, degrees Fahrenheit

depth

distance

height, high

perimeter

surface, surface area

width

Handling data

average

bar chart

bar-line graph

class interval

data, grouped data

data collection sheet

database

experiment

frequency

frequency chart

frequency diagram

interpret

interval

label

mean

median

mode, modal class/group

pie chart

questionnaire

range

represent

statistic, statistics

survey

table

tally

title

Probability

certain, uncertain

chance, no chance, good chance, poor chance, fifty-fifty chance, even chance

dice

doubt

equally likely

fair, unfair

likelihood

likely, unlikely

outcome

possible, impossible

probability

probability scale

probable

random

risk

spin, spinner

Year 8

This list contains the new key words introduced in the Year 8 teaching programme and supplement of examples. Words from earlier years are also used. For definitions, refer to a mathematical dictionary or to QCA's glossary at www.qca.org.uk.

Applying mathematics and solving problems

conclude, conclusion
counter-example
deduce
exceptional case
justify
prove, proof

Numbers and the number system

Place value, ordering and rounding

ascending, descending
billion
index
power

Integers, powers and roots

cube, cube number
cube root (e.g. $\sqrt[3]{8}$)
cubed (e.g. 2^3)
prime factor decomposition
to the power of n (e.g. 6^4)

Fractions, decimals, percentages, ratio and proportion

direct proportion
recurring decimal
terminating decimal
unit fraction
unitary method

Calculations

associative
best estimate
degree of accuracy
distributive
interest
profit, loss
service charge
sign change key
tax
value added tax (VAT)

Algebra

Equations, formulae and identities

algebraic expression
collect like terms
formula, formulae
linear equation
linear expression
multiply out (expressions)
prove, proof
transform
verify

Sequences, functions and graphs

arithmetic sequence
difference pattern
flow chart
general term
gradient
intercept
linear function
linear relationship
linear sequence
notation $T(n)$
slope
steepness

Shape, space and measures

Geometrical reasoning: lines, angles and shapes

alternate angles

bisect, bisector

complementary angles

congruent, congruence

corresponding angles

elevation

equidistant

exterior angle

heptagon

interior angle

isometric

mid-point

plan view

prove, proof

supplementary angles

tessellate, tessellation

triangular prism

view

Transformations

centre of enlargement

enlarge, enlargement

map

plan

scale, scale factor

scale drawing

Construction and loci

compasses

construction lines

locus, loci

perpendicular bisector

straight edge

Measures and mensuration

bearing, three-figure bearing

displacement

foot, yard

hectare

tonne

volume: cubic millimetre, cubic centimetre, cubic metre

Handling data

continuous

data log

discrete

distance–time graph

distribution

interrogate

line graph

population pyramid

primary source

sample

scatter graph

secondary source

stem-and-leaf diagram

two-way table

Probability

biased

event

experimental probability

sample

sample space

theoretical probability

theory

Year 9

This list contains the new key words introduced in the Year 9 teaching programme and supplement of examples. Words from earlier years are also used. For definitions, refer to a mathematical dictionary or to QCA's glossary at www.qca.org.uk.

Applying mathematics and solving problems

generalise
trial and improvement

Numbers and the number system

Place value, ordering and rounding

exponent
greater than or equal to ($\geq$)
less than or equal to ($\leq$)
significant figures
standard (index) form
upper bound, lower bound

Integers, powers and roots

index, indices
index law
index notation

Fractions, decimals, percentages, ratio and proportion

proportional to ($\propto$)
proportionality

Calculations

compound interest
constant
cost price, selling price
reciprocal

Algebra

Equations, formulae and identities

and, or
common factor
cubic equation
cubic expression
expand the product (of two linear expressions)
factorise
identically equal to ($\equiv$)
identity
index law
inequality
quadratic equation
quadratic expression
region
simultaneous equations
subject of the formula
take out common factors

Sequences, functions and graphs

cubic function
curve
first/second difference
identity function
inverse function
inverse mapping
quadratic function
quadratic sequence
maximum/minimum point
maximum/minimum value
self-inverse

Shape, space and measures

Geometrical reasoning: lines, angles and shapes

arc
centre (of circle)
chord
circumference
convention
cross-section
definition
derived property
diameter
hypotenuse
pi (π)
plane
projection
Pythagoras' theorem
similar, similarity
region
radius
region
section
sector
segment
similar, similarity
tangent (to a curve)

Transformations

axis of rotation symmetry
plane symmetry
plane of symmetry

Construction and loci

circumcentre
circumcircle
circumscribed
inscribed

Measure and mensuration

adjacent, opposite, hypotenuse
angle of depression
angle of elevation
density
pressure
sine (sin), cosine (cos), tangent (tan)
speed: miles per hour, metres per second

Handling data

bias
census
cumulative frequency
estimate of the mean/median
interquartile range
line of best fit
quartiles
raw data
representative (sample)

Probability

exhaustive
independent
limit
mutually exclusive
notation: p(*n*) for probability of event *n*
relative frequency
tree diagram