**Vocabulary Progression**

**St Augustine’s Catholic Primary School**

**Vocabulary Progression**

**Reception – Year 6**





 *‘There is an association between the quality and frequency of mathematical language used by carers, parents and teachers as they interact with young children, and children’s development in important aspects of maths.’*

*Dunphy et al (2014)*

*Language is essential to the learning of mathematics. It provides a means for learners to express their understanding, negotiate meanings, to develop their thinking further and to share their findings with others. Language is necessary for the transition of problems between the real world of mathematics and mediates between the teacher and learner and between learners. It helps to expose understanding and develop meaning.*

*It is important to introduce children to the correct vocabulary at the appropriate time and within a suitable context. This should be done using relevant real-life objects, mathematical manipulatives and visual representations such as pictures and diagrams.*

 *All children need regular, planned opportunities to develop their mathematical vocabulary in order that they become familiar with the language and are not confused by mathematical terms.*

*The Vocabulary Progression document provides a reference to support teachers in identifying the words that the children need to understand and use in order to make good progress in mathematics.*

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| **Reception** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Reasoning and Problem Solving Language** |
| patternpuzzlewhat could we try next? how did you work it out? recognisedescribedrawcomparesort  | problem solvingmental, mentallyexplain your thinking | show how you …explain your methoddescribe the patterndescribe the ruleinvestigatemental calculationwritten calculation | greatest value, least valuestatement | justifymake a statement |  |  |
| **Number and Place Value** |
| zeronumberone, two, three ... to twenty and beyond teens numbers, eleven, twelve ... twenty nonehow many ...?count, count (up) to, count on (from, to), count back (from, to)count in ones, twos, fives, tensis the same asmore, lessodd, evenfewpatternpair onestensdigitthe same number as, as many as more, larger, bigger, greater fewer, smaller, less fewest, smallest, leastmost, biggest, largest, greatest one more, ten moreone less, ten lesscompareordersizefirst, second, third... twentieth last, last but onebefore, afternextbetween  | Numeraltwenty-one, twenty-two ... one hundredforwardsbackwardsequal toequivalent tomultiple ofhalf-way betweenabove, belowroughly | twohundred ... one thousandthrees, foursand so onTallysequencecontinuepredictrule> greater than< less thanhundreds one-, two- or three-digit numberplace, place valuestands for, representsexchangetwenty-first, twenty-second …exact, exactly | eights, fifties and so on to hundredsfactor ofRelationshipRoman numeralsone hundred moreone hundred lessapproximate, approximatelyround, nearest, round to the nearest ten,hundredround up, round downconsecutive  | ten thousand,hundred thousand, millionsixes, sevens, nines,twenty-fivesnext, consecutiveinteger, positive, negativeabove/below zero, minusnegative numbersonethousand moreoneThousand lessThousand | factoriseprime factorformuladivisibilitysquare numberprime numberascending/descending order≥ greater than or equal to≤ less than or equal tocardinal number |  |
| **Addition and Subtraction** |
| add, more, and make, sum, total altogether double one more, two more ... ten more how many more to make ...? how many more is ... than ...? how much more is ...? take awayhow many are left/left over? how many have gone?one less, two less, ten less ... how many fewer is ... than ...? how much less is ...? difference between Whole  | Additionnear doublehalf, halvesubtractequalsis the same asnumber bonds/pairsmissing number | onehundred moreonehundred lessFacts tens boundary | hundreds boundary | inverse |  |  |
| **Multiplication and Division** |
| Sharing Double Doubling HalfHalving  | multiplicationmultiplymultiplied bymultipledivisiondividingGroupingarray | groups oftimesonce, twice, three times ... ten timesrepeated additiondivide, divided by, divided intoshare, share equallyleft, left overone each, two each, three each ... ten eachgroup in pairs, threes ... tensequal groups ofRow, columnmultiplication tablemultiplication fact, division fact | FactorProductRemainder | inversesquare, squaredcube, cubed | factor pair |  |
| **Fractions** |
| Part Whole  | fractionequal partequal groupingequal sharingone of two equal partsone of four equal parts | equivalent fractionmixed numbernumerator, denominatortwo halvestwo quarters, three quartersone third, two thirdsone of three equal parts | sixths, sevenths, eighths, tenths … | hundredthsdecimal, decimal fraction, decimal point,decimal place, decimal equivalentproportion | equivalent, reduced to, cancel |  |
| **Decimals and Percentages** |
|  |  |  |  | decimal point,decimal place, | Percentage, per cent, % |  |
| **Algebra** |
|  |  |  |  |  |  | formulaeequationunknownvariable |
| **Measure** |
| measuresizecompareguess, estimateenough, not enoughtoo much, too littletoo many, too fewnearly, close to, about the same as just over, just under metrelength, height, width, depthlong, short, tallhigh, lowwide, narrowthick, thinlonger, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so onfar, near, close weigh, weighs, balances heavy, lightheavier than, lighter than heaviest, lightest scales full empty half full holds container  | MeasurementRoughlyCentimetre,rulermetre stickkilogram, half kilogramlitre, half litrecapacityvolumemore thanless thanquarter full | measuring scalefurther, furthest,tape measureGramMillilitreContainsTemperaturedegreeconjecture | DivisionApproximatelyMillimetre,kilometre, miledistance apart ... between ... to ... fromperimeterCentigrade | unit, standard unitmetric unitBreadthedge area, coverssquare centimetre (cm2)mass: big, bigger, small, smallerweight: heavy/light, heavier/lighter, heaviest/lightestmeasuring cylinder | imperial unitPintGallonyard, foot, feet, inch, inchesTonne, pound, ouncesquare metre (m2),square millimetre (mm2) | centilitrecubic centimetres(cm3), cubic metres (m3),cubic millimetres (mm3), cubic kilometres(km3)circumference |
| **Measure: Time** |
| timedays of the week, Monday, Tuesday ... day, weekbirthday, holidaymorning, afternoon, evening, night bedtime, dinner time, playtimetoday, yesterday, tomorrowbefore, afternext, lastnow, soon, early, latequick, quicker, quickest, quicklyslow, slower, slowest, slowlyold, older, oldestnew, newer, newesttakes longer, takes less timehour, o’clockclock, watch, hands  | months of the year (January, February ...)seasons: spring, summer, autumn, winterday, week, weekend, month, yearearlier, laterFirstmidnightdatehow long ago?how long will it be to ...?how long will it take to ...?how often?always, never, often, sometimesusuallyonce, twicehalf past, quarter past,quarter toClock facehour hand, minute handhours, minutes | Fortnight,5, 10, 15 ... minutes pastdigital/analogue clock/watch, timerSeconds | CenturyCalendar,earliest, latesta.m., p.m.Roman numerals12-hour clock time, 24-hour clock time | leap year,MillenniumNoondate of birthtimetable, arrive, depart |  | Greenwich Mean Time, British SummerTime, International Date Line |
| **Measure: Money** |
| moneycoinpenny, pence, pound price, costbuy, sellspend, spentpay  | changedear, costs morecheap, costs less, cheapercosts the same ashow much ...?how many ...?total | Bought,Sold |  |  |  | Profit/Loss |
| **Geometry** |
| shape, pattern flatcurved, straight round hollow, solidsort make, build, draw size bigger, larger, smaller symmetricalpattern, repeating pattern match corner, siderectangle (including square) circletriangle face, edge, vertex, vertices cubepyramidsphere cone positionover, underabove, belowtop, bottom, sideon, inoutside, insidearoundin front, behindfront, backbeside, next tooppositeapartbetweenmiddle, edgecornerdirectionleft, rightup, downforwards, backwards, sideways acrossnext to, close, near, faralongthroughto, from, towards, away from movementsliderollturnstretch, bendwhole turn, half turn  | Symmetry,symmetrical patternpoint, pointedCuboidCylinderUnderneathCentreJourneyquarter turn,three-quarter turn | Surfaceline symmetryrectangular, circular, triangularpentagonhexagonoctagonRoutehigher, lowerclockwise, anticlockwiseright anglestraight lineCarroll diagram | PerimeterPentagonalHexagonaloctagonalquadrilateralright-angledparallel, perpendicularHemisphereprism, triangular prismcompass pointnorth, south, east, west, N, S, E, Whorizontal, vertical, diagonalangle ... is a greater/smaller angle thanacute angleobtuse angle | LineConstruct,SketchCentreangle, right-angledbase, square-basedreflect, reflectionregular, irregular2-D, two-dimensionaloblongrectilinearequilateral triangle, isosceles triangle,scalene triangleHeptagonparallelogram, rhombus, trapeziumpolygon3-D, three-dimensionalSphericalCylindricaltetrahedron, polyhedronnorth-east, north-west, south-east,south-west, NE, NW, SE, SWtranslate, translationrotate, rotationDegreeReflectionruler, set squareangle measurer, compassCoordinatex-axis, y-axis, quadrant | Octahedronnet, open, closedProtractormaximum/minimum valueoutcomeaxis of symmetry, reflective symmetryCongruentradius, diameter | Dodecahedroncircumference, concentric, Arcintersecting, intersectionplane |
| **Statistics** |
| count, sort group, set list  | VoteTable | Tallygraph, block graph, pictogramrepresentlabel, titlemost popular, most commonleast popular, least common | chart, bar chart, frequency tableCarroll diagram, Venn diagramaxis, axesdiagram | survey, questionnaire, data | Pie chartdatabase | mean (mode, median, range as estimatesfor this)statistics, distribution |