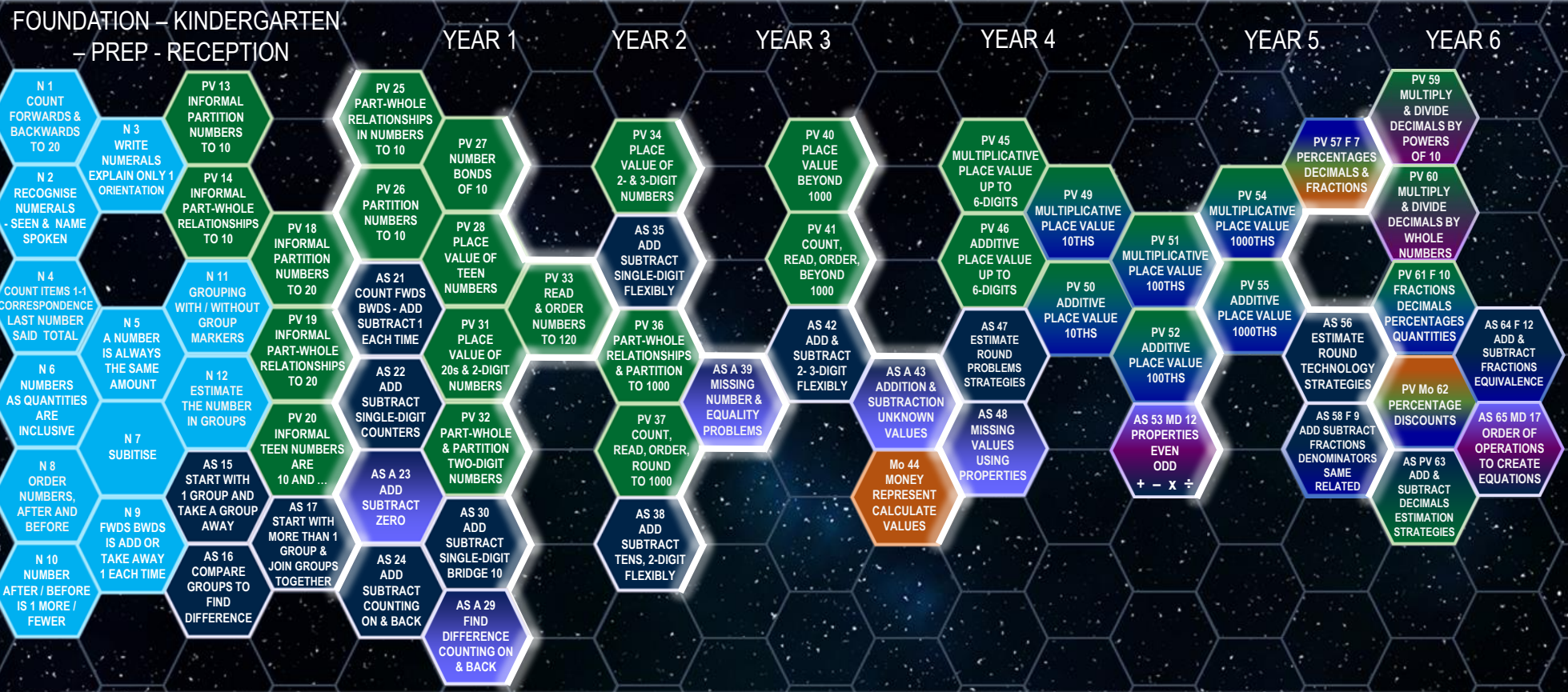
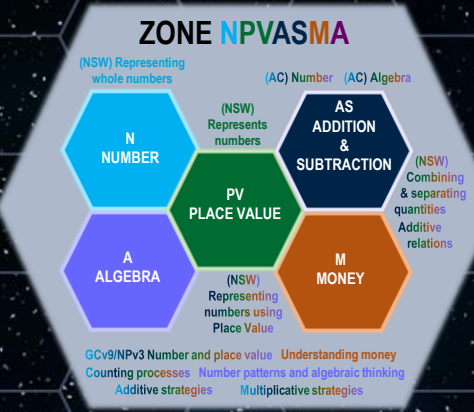


ZONE: NUMBER + PLACE VALUE + ADDITION AND SUBTRACTION + MONEY + ALGEBRA

A ZONE is a group of related Concepts and Elements that are explicitly taught and investigated simultaneously.



Elements are numbered sequentially, demonstrating that:

NUMBER CONCEPTS have an empirical and logical basis to

PLACE VALUE CONCEPTS which have an empirical and logical basis to

ADDITION AND SUBTRACTION CONCEPTS.

For details on how this works across each Grade, see each Grade's SCOPE AND SEQUENCE

FOUNDATION – KINDERGARTEN – PREP – RECEPTION - NUMBER 1 2 3 4 5 6 7 8 9 10 11 12 PLACE VALUE 13 14

YEAR 1 - ADDITION AND SUBTRACTION 15 16 17 PLACE VALUE 18 19 20 ADDITION AND SUBTRACTION 21 22 23 24 PLACE VALUE 25 26 27 28 ADDITION AND SUBTRACTION 29 30 PLACE VALUE 31 32 33

YEAR 2 - PLACE VALUE 34 ADDITION AND SUBTRACTION 35 PLACE VALUE 36 37 ADDITION AND SUBTRACTION 38 39

YEAR 3 - PLACE VALUE 40 41 ADDITION AND SUBTRACTION 42 43 MONEY 44

YEAR 4 - PLACE VALUE 45 46 ADDITION AND SUBTRACTION 47 48 PLACE VALUE 49 50 51 52 ADDITION AND SUBTRACTION 53

YEAR 5 - PLACE VALUE 54 55 ADDITION AND SUBTRACTION 56 PLACE VALUE 57 ADDITION AND SUBTRACTION 58

YEAR 6 - PLACE VALUE 59 60 61 62 63 ADDITION AND SUBTRACTION 63 64 65



ELEMENT GROUPS

FOUNDATION / PREP / RECEPTION / KINDERGARTEN

- N 1** count forwards & backwards to 20
- N 2** recognise numerals - seen & name spoken
- N 3** write numerals explain only 1 orientation
- N 4** Count items 1-1 correspondence - last number said is total
- N 5** Numbers as quantities are inclusive
- N 6** A number always represents the same amount
- N 7** Subitise
- N 8** Order numbers & number after and before
- N 9** Number after & before is 1 more or 1 fewer
- N 10** Counting forwards/backwards, adding/taking away 1
- N 11** Group with and without group markers, comparing the groups as same (equal) or different, more or less
- N 12** Estimate the number in groups
- PV 13** Partition numbers to 10 into 2 or more parts, recording informally
- PV 14** Part-whole relationships in numbers to 10, recording informally
- AS 15** Start with 1 group, take a group away, recording informally
- AS 16** Compare 2 groups to find their difference by taking away from 1 group, or from adding to the other group
- AS 17** Start with more than 1 group, join groups together, recording informally
- PV 18** Partition numbers to 20 into 2 or more parts, recording informally
- PV 19** Part-whole relationships in numbers to 20, recording informally
- PV 20** Teen numbers are 10 and ..., recording informally

YEAR 1

- AS 21** Counting forwards is adding 1 each time; Counting backwards is subtracting 1 each time
- AS 22** Add / subtract single-digit counting 1s counters
- AS 23** Add / subtract zero not change number in value
- AS 24** Add / subtract single-digit counting forwards and backwards by 1s on a number line
- AS A 29** Find difference between 2 numbers - counting-up-to and -from, and by counting-down-from and -to
- PV 25** Part-whole relationships between numbers to 10
- PV 26** Partition numbers to 10
- PV 27** Number bonds of 10 as 2 single-digit numbers that add to make 10, and as the number remains when a single-digit number is subtracted from 10
- PV 28** Place value of teen numbers as 1 ten and some ones
- AS 30** Add and subtract single-digit numbers bridging 10 using non-count-by-ones strategies
- PV 31** Place value of 20s / two-digit as some tens + some ones
- PV 32** Part-whole relationships and partition two-digit numbers into 2 or more parts
- PV 33** Count, read and order numbers to at least 120, and identify closest decades

YEAR 2

- PV 34** Standard / non-standard place value of two- and three-digit numbers
- AS 35** Add / subtract single-digit numbers, including as money, non-count-by-ones strategies - bridging to 10 / decades by partitioning, doubles and near-doubles, using models number lines, bar models, 10 frames
- PV 36** Part-whole relationships and partitioning two- and three-digit numbers
- PV 37** Count, read, order numbers to 1000, including count by place values (1s, 10s, 100s), round to nearest place value when adding / subtracting
- AS 38** Add and subtract tens and two-digit numbers, including as money, using non-count-by-ones strategies including counting by 10s, bridging to decades by partitioning, doubles and near-doubles, and using models including number lines, bar models and 10 frames
- AS A 39** Use number bonds, part-part-whole reasoning and inverse relationships between addition and subtraction to determine a missing number to solve equality problems

YEAR 3

- PV 40** Standard and non-standard place value of numbers beyond 1000
- PV 41** Count, read and order numbers beyond 1000, including count by place values (1s, 10s, 100s) and round to nearest place value when adding and subtracting
- AS 42** Add and subtract two- and three-digit numbers, using non-count-by-ones strategies including bridging to place values by partitioning, inverse operations, rearranging and regrouping and using models including number lines and bar models
- AS A 43** Unknown values in addition and subtraction number sentences using the meaning of the equals sign, equal differences and the inverse relationship

YEAR 4

- PV 45** Multiplicative place value of whole numbers as multiplying and dividing by 10 to get the values of the places to the left and the right
- PV 46** Additive standard and non-standard place value of whole numbers up to 6 digits
- PV 49 PV 50** Multiplicative, standard and non-standard place value of numbers to tenths by dividing 1 by 10
- PV 51 PV 52** Multiplicative, standard and non-standard place value of numbers to hundredths by dividing tenths by 10
- AS 47** Add and subtract using estimation, rounding to explain reasonableness of calculations; problem solving involving additive situations including bridging to place values by partitioning, inverse operations, rearranging and regrouping and using part/whole models, number lines and bar models, including money
- AS 48** Missing values in addition and subtraction using the properties of numbers and operations

YEAR 5

- PV 54** Multiplicative place value of numbers to thousandths by dividing a hundredth by 10 and 1 by 1000
- PV 55** Additive standard and non-standard place value of numbers to thousandths
- AS 56** Add and subtract using estimation and rounding to check and explain reasonableness of calculations; problem solving involving additive situations, including money, using appropriate strategies, approximations and technology
- PV Mo 57 F 7** Percentages as a proportional relationship between a quantity and 100; connect familiar percentages to their decimal and fraction equivalents; connect the multiplicative relationship between dollars and cents
- AS 58 F 9** Add and subtract fractions with the same or related denominators using efficient strategies

YEAR 6

- PV 59** Multiply and divide decimals by powers of 10 using multiplicative place value
- PV 60** Multiply and divide decimals by whole numbers using multiplicative place value
- AS PV 63** Add and subtract decimals using understanding of place value, estimation and rounding to explain reasonableness of answers
- AS 64 F 12** Add and subtract fractions using understanding of equivalent fractions, using number lines and diagrams
- AS 65 MD 18** Shared agreement on a set of rules to complete multiple operations within the same number sentence to have unique solutions, use grouping symbols to indicate the operations that must be performed first, creating equivalent number sentences

