The Big Ideas in Number – Everyone's Responsibility

	F	1-2	3-4	5-6	7-8
Trusting the Count	Recognise collections to 10 without counting (subitising)*, Mental objects to 10*	Mental strategies for addition & subtraction	Efficient mental strategies for addition & subtraction, Rename numbers to support calculation	Extended number facts for addition & subtraction	Efficient estimation using number facts & place value knowledge
Place-Value	1 ten and (sense of numbers beyond 10)	10 of these is 1 of those, Rename 2 & 3-digit numbers in place value parts	Rename whole numbers in place value parts, 1 tenth of these is 1 of those	1000 of these is 1 of those, Rename decimal fractions in place value parts	Recognise structure of the base 10 place-value system
Multiplicative Thinking	Numbers as composite units (many-as-one), Doubles to 20, fair sharing	Arrays & regions, Doubling & halving, Fair shares, Partition & quotition*	For each and times as many ideas for multiplication, Mental strategies for multiplication*	Area & factor-factor- product ideas* for multiplication & division Efficient mental strategies	Rate, ratio, percent, factors, Extended number facts for multiplication & division
Partitioning	Mental objects to 10 (part-part-whole knowledge), fair sharing	Halving & thirding (equipartitioning) strategies*	Fifthing & tenthing strategies*, Locate fractions on a number line	Rename fractions using partitioning strategies	Rename fractions using times as many ideas
Proportional Reasoning	Many-to-one counts, simple rate (for each) problems*	Locating whole numbers and simple fractions on a number line, 1 n th of , Simple ratio problems*	Locate numbers on a number line, Simple proportion problems*	Problems involving scale, Recognise relationship between length of sides and area of rectangle	Rate, ratio, percent, missing value and compare problems
Generalising	At all levels and across all strands of the mathematics curriculum, students need regular opportunities to form and test conjectures, identify patterns, and generalise from multiple instances to support algebraic reasoning in later years				

* See Siemon, D., Warren, E., Beswick, K. et al. (2021). *Teaching Mathematics: Foundation to Middle Years*. Oxford University Press