Long term plan

SEND – Adaptive Teaching	• Isolate learning e.g. when looking at perimeter avoid using measures with decimals/ fractions – ensure the learning is focus so not to overload • Connect the key learning e.g once 37+4 is learnt introduce missing number or 37+5 • Allow time for oracy and explaining understanding • Clarify/simplify a task or provide numbered steps with visual representations • Provide manipulatives and pictorial examples to support conceptualise learning • Give time to explore a problem and ask questions to prompt thinking during that time • Provide worked (completed) and partially completed examples. • Re-explain a concept or explain it in a different way • Give additional (or revisit) examples • Use peer tutoring/collaborative learning (everyone must participate – give roles) • Provide additional scaffolds • Set clear targets/expectations • Provide prompts/sentence stems • Improve accessibility (e.g. proximity to speaker, visibility of whiteboard, read a question to the pupil) • Consider pace - (extra time for responses to questions, contributing to class discussions and to complete activities) • Provide vocabulary with visual images • check understanding and reinforcing as needed through repetition, rephrasing, explaining and demonstration • Have alternative ways to record learning, e.g. oral, photographic, video, highlighting text, mind maps • Pre-teach vocabulary, key content

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Strategies to stretch and challenge	• Identify and account for prior knowledge – a child who has extensive prior knowledge could be asked to present some of the knowledge they have to the class; explain something they understand easily to a child who doesn't 'get it' so quickly • Depth of content - consider what you can add to create depth, e.g. digging into an area more deeply, going laterally with a concept, or asking pupils to use more reason with abstract ideas • Use questioning techniques to boost thinking – ask open-ended questions which require higher-order thinking • Consider learner roles – ensure they are appropriately challenged through the role they are given so they can make an effective contribution; argue in favour of a viewpoint that is different to their own, e.g. argue the opposite position to that which they actually hold, during a class debate • Mastery - more intensive teaching, tutoring, peer-assisted learning, small group discussions, or additional homework • Offer a choice of tasks with a different level of challenge • Feedback – framing feedback so pupils must take responsibility for improving their own learning

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F1	**Numerical Patterns**	-Compare amounts, saying 'lots', 'more' or 'same'. Vocabulary: lots, more, same Key Knowledge: *Can point to the set of objects that has more *Can indicate when 2 sets are the same using the word 'same' or an action *Can use the word 'more' to describe the greater amount -Explore 2D shapes Vocabulary: shapes, square, circle, rectangle, triangle Key Knowledge: *Can copy pictures using 2D shapes *Can name the square, rectangle, triangle and circle *Can choose shapes for particular purposes e.g. triangle for roof	-Compare sizes using gesture and language (big/small) -Make comparisons between objects relating to size Vocabulary: big, small, size Key Knowledge: *Can point to the big or small object (2 different sized objects) *Can use the words 'big' and small alongside an action to describe 2 different sized objects -Notice patterns and arrange things in patterns. Vocabulary: pattern, repeated pattern, ABAB Key Knowledge: *Can talk about the colours in an ABAB pattern *Can copy an ABAB pattern *Can continue an ABAB pattern -Combine shapes to make new ones – an	-Talk about 2D shapes using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. Vocabulary: Key Knowledge: *Can make pictures using 2D shapes *Can name the square, rectangle, triangle and circle *Can use informal language to describe the shapes e.g. round, flat *Can use mathematical language 'sides' and 'corners' to describe the shapes -Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. (transport) Vocabulary: shapes, square, circle, rectangle, triangle, flat, build Key Knowledge: *Can name the square, rectangle, triangle and circle	-Compare weights using gesture and language (heavy and light) -Make comparisons between objects relating to weight Vocabulary: heavy, light, balance scale, weigh *Can use a balance scale correctly *Can point to the heavy or light object (2 different weighted objects) *Can use the words 'heavy' and 'light' alongside an action to describe 2 different weighted objects -Compare sizes using gesture and language (tall/short/long) -Make comparisons between objects relating to length and height Vocabulary: tall, short, long *Can point to the long or short object/tall or short objects (2 different length objects) *Can use the words 'long/tall' and short	-Talk about and explore 3D shapes using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. Vocabulary: shapes, sides, corners, straight, flat, round *Can use 3D shapes to build models *Can use informal language to describe the shapes e.g. round, flat *Can use mathematical language to name some 3D shapes -Make comparisons between objects relating to capacity Vocabulary: full, empty, container *Can point to a full or empty container (2 different capacities) on command *Can fill different containers to show 'full' and 'empty' *Can say if a container is full/empty	-Describe a familiar route. -Discuss routes & locations Vocabulary: in, on, under, behind, over Key Knowledge: *Can follow a route on command *Can use key words to describe the route -Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' Vocabulary: order, first, next, then Key Knowledge: *Can put a familiar sequence of events in the correct order *Can use key words to describe the sequence of events e.g. first I brush my teeth, then… -Compare quantities using language: 'more than', 'fewer than'. Vocabulary: more than, fewer than, same Key Knowledge:

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			arch, a bigger triangle etc. **Vocabulary: shapes, square, circle, rectangle, triangle, flat, bigger, smaller** **Key Knowledge:** ***Can fit shapes together** ***Can say if the shape is the same or different e.g. is it bigger/smaller, has it made a new shape (2 rectangles making a square)**	***Can use 2D and 3D shapes to build models/pictures** ***Can choose shapes for particular purposes e.g. triangle for roof** **-Understand position through words alone – for example, "The bag is under the table," – with no pointing** **Vocabulary: in, on, under, behind** **Key Knowledge:** ***Can place an object in the correct position** ***Can say where the object has been positioned**	**alongside an action to describe 2 different length objects** **-Talk about and identifies the patterns around them.** **-Extend and create ABAB patterns – stick, leaf, stick, leaf** **Notice and correct an error in a repeating pattern.** **Vocabulary: pattern, repeated pattern, ABAB** **Key Knowledge:** ***Can talk about ABAB patterns** ***Can continue an ABAB pattern** ***Can create own ABAB pattern** ***Can spot an error in an ABAB pattern and correct it practically**		***Can point to the set of objects that has more or fewer** ***Can indicate when 2 sets are the same using the word 'same' or an action** ***Can use the words 'more' or 'fewer' to describe the lesser/ greater amount**

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	Number	-Count in everyday contexts, sometimes skipping numbers - '1-2-3-5 Vocabulary: count, numbers, Key Knowledge: *Can count objects to 5 with an adult *Knows that counting starts from the number 1	-Say one number for each item in order: 1,2,3,4,5 Vocabulary: count, numbers, order Key Knowledge: *Can touch each object once *Can say a number for each object *Can say the numbers in order -Show 'finger numbers' up to 5. Vocabulary: count, finger numbers, order Key Knowledge: *Can copy finger numbers *Can count a number onto each finger *Can say a number for each finger *Can say the numbers in order -Fast recognition of up to 3 objects, without having to count them individually ('subitising') Vocabulary: subitise Key Knowledge: *Can look carefully at the objects	-Recite numerals to 5 (recognising the numeral) Vocabulary: count, numbers, order Key Knowledge: *Knows that counting starts from the number 1 *Can point to each numeral (in order) *Can say a number for each numeral *Can say the numbers in order -Recite numbers past 5 Vocabulary: count, numbers, order Key Knowledge: *Knows that counting starts from the number 1 *Can say the numbers in order -Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). Vocabulary: count, numbers, order last number Key Knowledge:	-Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. Vocabulary: count, numbers, order, match Key Knowledge: *Can recognise numerals to 5 (random) *Knows that counting starts from one *Can count out one object at a time *Can say a number for each object *Can say the numbers in order -Experiment with their own symbols and marks as well as numerals Vocabulary: numbers, writing Key Knowledge: *Can trace over numbers (1-5) *Can write a number underneath a model (1-5) *Can mark make 'number like' numerals	-Solve real world mathematical problems with numbers up to 5. Vocabulary: count, numbers, order, match Key Knowledge: *Knows what Math skill is needed to solve a problem e.g. how many pencils do we need for our group	

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				***Can touch each object once** ***Can say a number for each object** ***Can say the numbers in order** ***Knows that the total is the last number counted**			

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F2	**Numerical Patterns**	**-Match and sort objects based on similarities and differences** Vocabulary: Match, sort, groups, same, different, pair, identical Key Knowledge: *Knows that matching objects can be identical *Knows that items can be matched on similar characteristics *Knows that objects can be grouped by colour, size, feature or orientation **Compare size** Vocabulary: Compare, size, order big/bigger/biggest small/smaller/smallest, wide(er), narrow(er) Key Knowledge: *Knows that comparing is measuring similarities or differences *Can identify big and small objects	**-Talk about and explore circles and triangles** Vocabulary: 2-d shapes, circle, triangle, characteristics, sides, corners, round curved, straight, flat Key Knowledge: *Knows that a 2D shape is a flat shape *Can identify a variety of sized circles and triangles *Can talk about the characteristics of circles and triangles *Can build with the circles and triangles **-Talk about and explore shapes with 4 sides** Vocabulary: 2-d shapes, rectangle Square, characteristics, sides, corners, straight flat Key Knowledge: *Knows that a 2D shape is a flat shape *Can identify a variety of sized squares and rectangles *Knows that squares and rectangles have 4 sides and 4 corners	**-Compare length and height** Vocabulary: Compare, measure, length, height long(er)(est) short(er)(est) tall(er)(est) Key Knowledge: *Knows that comparing is measuring similarities or differences *Knows that height is a measurement from the bottom to the top *Knows that length is a measurement from end to end *Can identify short and tall objects *Can identify short and long objects *Can order 3 objects based on their length or height	**-Compare capacity** Vocabulary: Compare, Measure, capacity, full/empty, more than/less than, half/half full Key Knowledge: *Knows that comparing is measuring similarities or differences *Knows that capacity is the amount that something can hold *Can say if a container is full, empty or half full *Can show full, empty and half full in a variety of containers **-Create repeating patterns** Vocabulary: Order, repeat, patterns, AB pattern, ABC patterns Key Knowledge: *Can name the AB pattern *Can complete an AB pattern *Can create own AB/ABC pattern **-3D shapes** Vocabulary:	**-Select, rotate and manipulate shapes** Vocabulary: 2d shapes, square, circle, rectangle, triangle, rotate, turn Key Knowledge: *Can select a square, rectangle, circle or triangle when asked *Knows that shapes can be rotated *Knows that shapes can be put together to make bigger shapes *Knows that shapes can be put together to make different shapes **-Explore and represent patterns in numbers (doubles)** Vocabulary: Double, twice as many equal, unequal, group Key Knowledge: *Knows that double means the same amount again or twice as many *Knows that the amounts should be equal *Can double an amount equally	**-Explore and represent patterns in numbers (doubles recap)** Vocabulary: Double, twice as many equal, unequal, group Key Knowledge: *Knows that double means the same amount again or twice as many *Knows that the amounts should be equal *Can double an amount equally **-Time (measuring periods of time)** Vocabulary: Time, day, week, hour, minutes, quicker, slower Key Knowledge: *Knows that time can be measured *Knows that a week has 7 days *Knows that days have hours and minutes *Knows that actions can be quicker or slower **-Time (sequencing events)** Vocabulary:

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		*Can order 3 objects based on their size -Compare weight Vocabulary: Compare, weight, heavy/light, heavier than, lighter than, balance, scales Key Knowledge: *Knows that comparing is measuring similarities or differences *Knows how to use a set of balance scales correctly *Can identify heavy and light objects	*Can build with the squares and rectangles -Copy and continue repeating patterns Vocabulary: Order, repeat, patterns, AB pattern Key Knowledge: *Can name the AB pattern *Can complete an AB pattern *Can create own AB pattern -Use positional language Vocabulary: Over, under, between, around, through, on, into next to, behind, beneath on top of Key Knowledge: *Can place an object in the correct position *Can say where the object has been positioned		3-d shapes, characteristics, cuboids, cubes, cone, spheres FACE, rectangle, square, circle, curved, straight, flat Key Knowledge: *Knows that a 3D shape is a solid shape *Can identify a cube, cuboid, sphere and cone *Can talk about the characteristics of a cube, cuboid, cone and sphere -Explore Sharing Vocabulary: Half, halve, halving equal, unequal, share Key Knowledge: *Knows that sharing is letting someone else have a part of something that belongs to you *Knows that sharing equally means both people have the same amount *Can share an amount equally Can say when an amount is unequal	-Compose and decompose shapes Vocabulary: 2d shapes, smaller, bigger, square, circle, rectangle, triangle, rotate, turn, compose (joined), decompose (broken apart) Key Knowledge: *Can select a square, rectangle, circle or triangle when asked *Knows that composing shapes means putting them together and decomposing means taking them apart *Knows that shapes can be put together to make bigger shapes *Knows that shapes can be put together to make different shapes -Explore and represent patterns in numbers (odd and even) Vocabulary: Odd, even, equal, unequal, share group Key Knowledge:	Time, earlier, later, before, after, first, next today, yesterday, tomorrow, morning afternoon, evening/night day Key Knowledge: *Knows that there is a day and night *Knows that a day is ordered into morning, afternoon, evening and night *Knows the sequence of yesterday, today and tomorrow *Can use the time words before, first, next, after in order

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						***Knows that an even number can be shared by 2** ***Knows that an odd number cannot be shared equally** ***Can identify odd and even numbers to 10.**	

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	Number	**-Compare amounts (more/fewer)** Vocabulary: Count, compare, equal to, more than less than (fewer) Key Knowledge: *To count out the correct number of objects *To identify the group which has more/fewer/equal	**-Representing numbers 1-5** Vocabulary: Numerals, digit, Count, subitise, order, ordinal Key Knowledge: *To count in sequence from 1-5 *To understand the cardinal principle *To count out a specific amount from a larger group *To identify a numeral *To match numerals to amounts *To represent a number through mark making **-Comparing numbers to 5 (more/less)** Vocabulary: Compare, one more one less, equal to more than, less than (fewer), Forwards, Backwards Key Knowledge: *To count out a correct amount of objects *To find one more/less *To identify and compare amounts	**-Representing numbers to 10** Vocabulary: Numerals, digit, count, subitise, order, ordinal Key Knowledge: *To count in sequence from 1-10 *To understand the cardinal principle *To count out a specific amount from a larger group *To identify a numeral *To match numerals to amounts *To represent a number through mark making **-Compare numbers to 10 (more/less)** Vocabulary: Forwards, Backwards, compare, one more, one less, equal to, more than less than (fewer) Key Knowledge: *To count out a correct amount of objects *To find one more/less *To identify and compare amounts *To identify and compare numbers	**-Subtraction** Vocabulary: take away /minus, left Key Knowledge: *To understand that taking an amount away will create a smaller amount *To count backwards *To count the new amount once an amount has been subtracted	**-Recall number bonds 0-10** Vocabulary: Number bonds, add, plus together, total Key Knowledge: *Knows a number bond is 2 numbers that are added together to make 10. *Knows which 2 Numicon number make 10 **-Add by counting on** Vocabulary: Add, plus, altogether, total Key Knowledge: *To count forwards *To count on in sequence from numbers other than 1 **-Subtraction** Vocabulary: take away /minus, left Key Knowledge: *To understand that taking an amount away will create a smaller amount *To count backwards	**-Recall number bonds 0-10** Vocabulary: Number bonds, add, plus together, total Key Knowledge: *Knows a number bond is 2 numbers that are added together to make 10. *Knows which 2 Numicon number make 10 **-Representing numbers beyond 10** Vocabulary: Numerals, digit, count, subitise, order, ordinal Key Knowledge: *To count in sequence beyond 10 *To understand the cardinal principle *To identify a numeral *To match numerals to amounts *To represent a number through mark making

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			*To identify and compare numbers -Explore the composition of numbers to 5 Vocabulary: Part, whole, Altogether, Bigger, Smaller Key Knowledge: *To understand that a whole number can be made in different ways *To understand that smaller numbers can combine to create larger numbers -Understand 1 more than and 1 less than Vocabulary: Key Knowledge:	-Explore the composition of numbers to 10 Vocabulary: Part, whole Key Knowledge: -Combine 2 groups to add Vocabulary: Add, plus, altogether, total Key Knowledge: *To understand that two groups combine to create a larger amount *To count forwards *To count the new amount once two amounts are combined		*To count the new amount once an amount has been subtracted	

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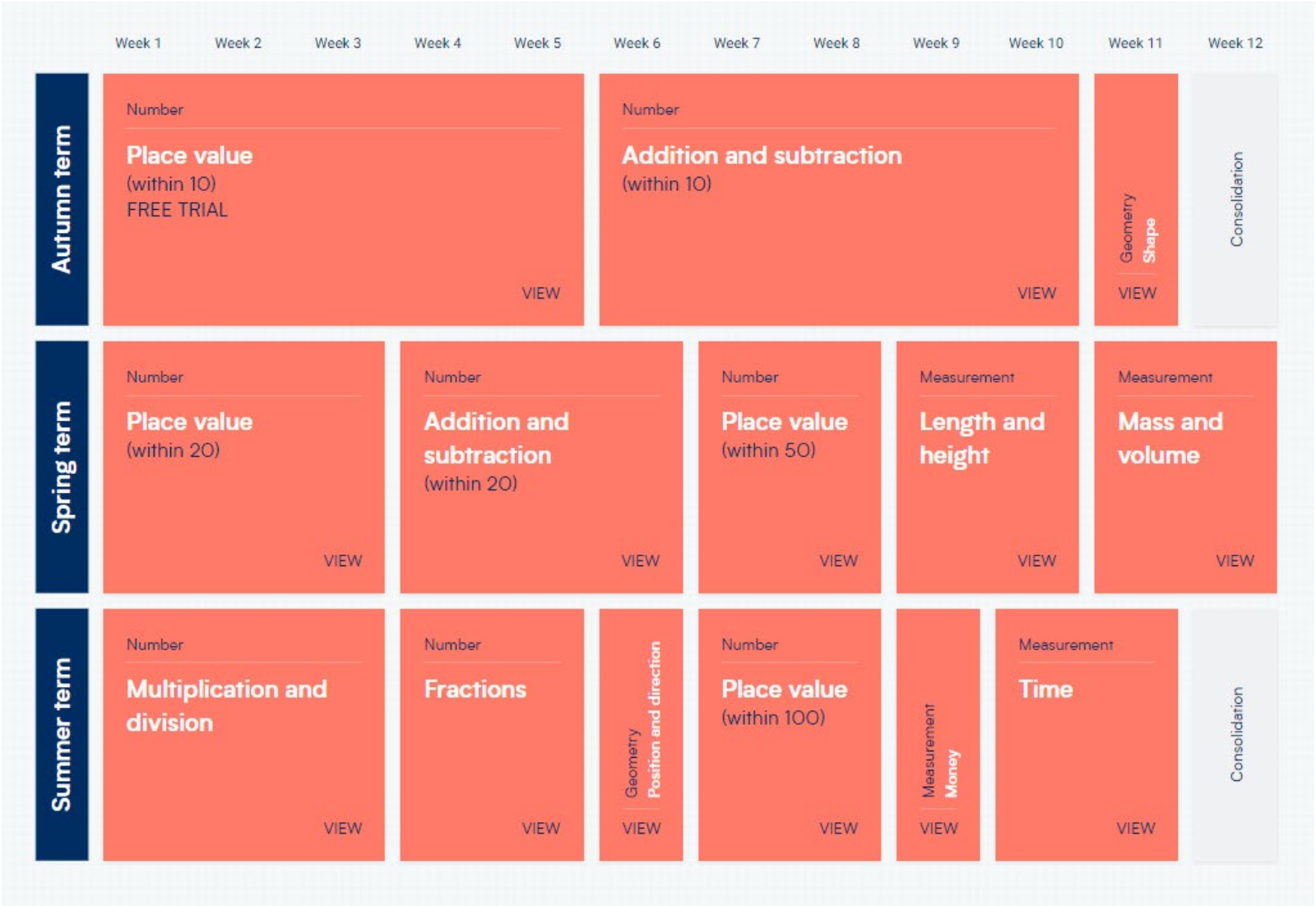

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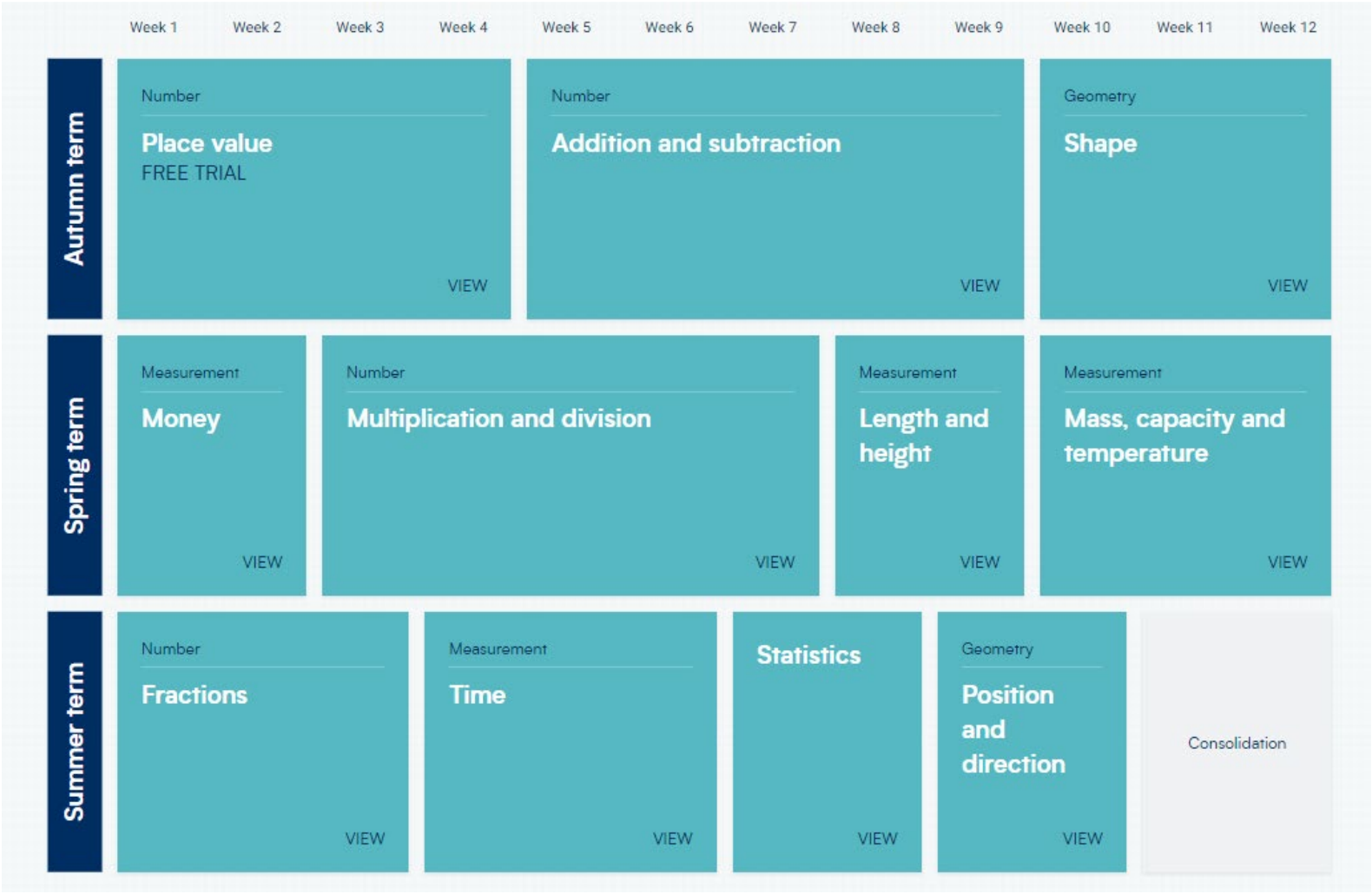
Year 2



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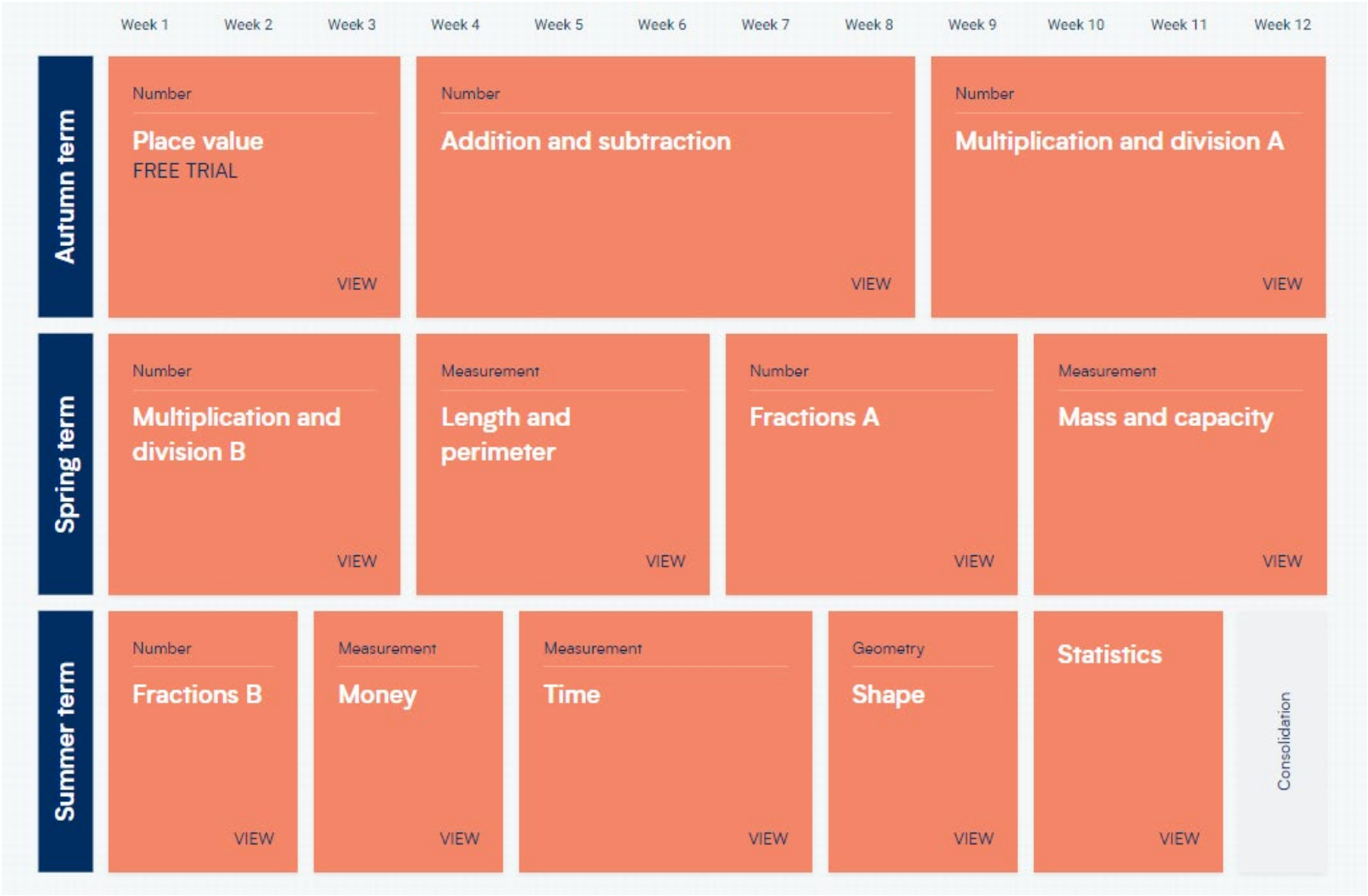

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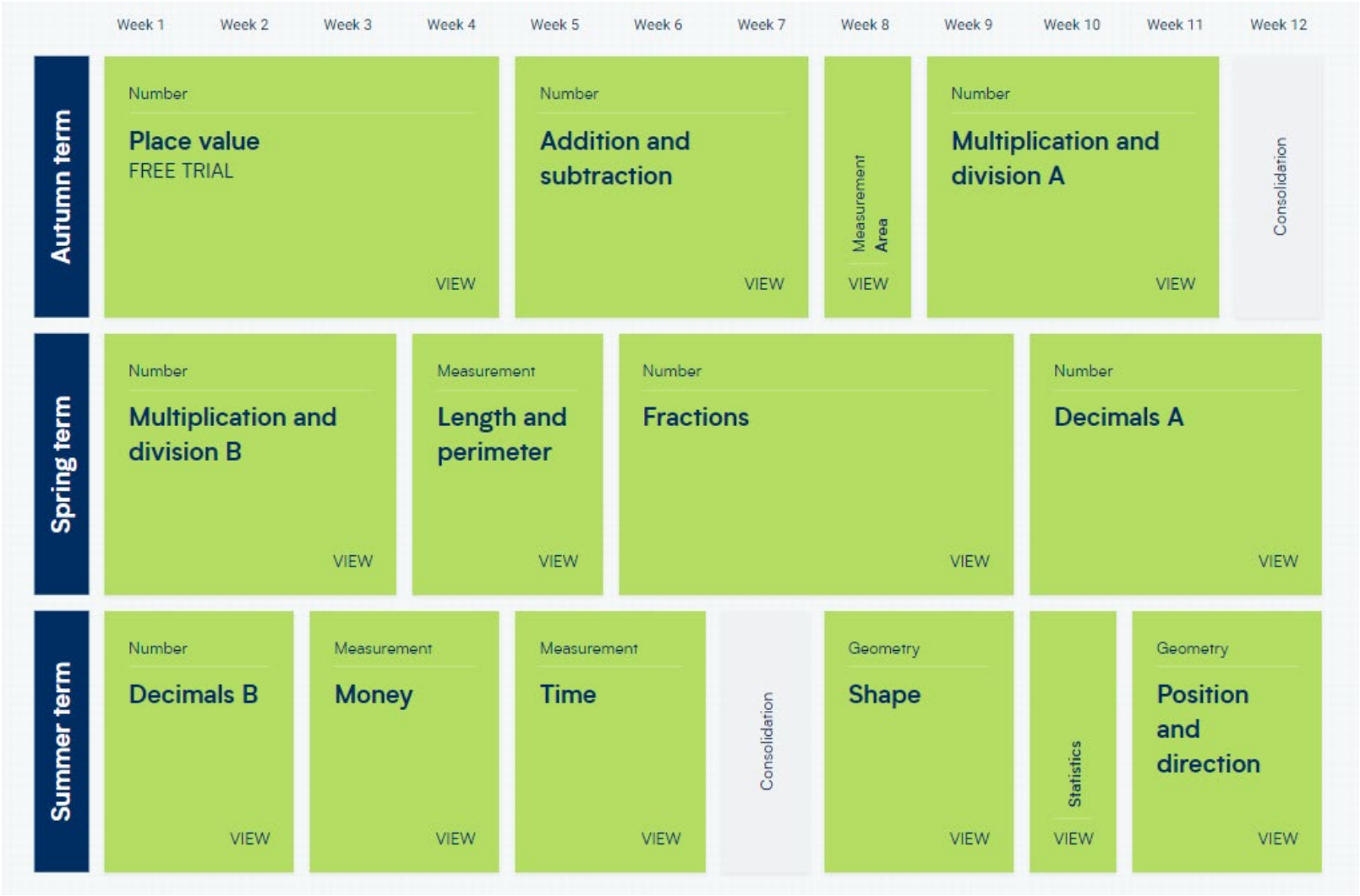

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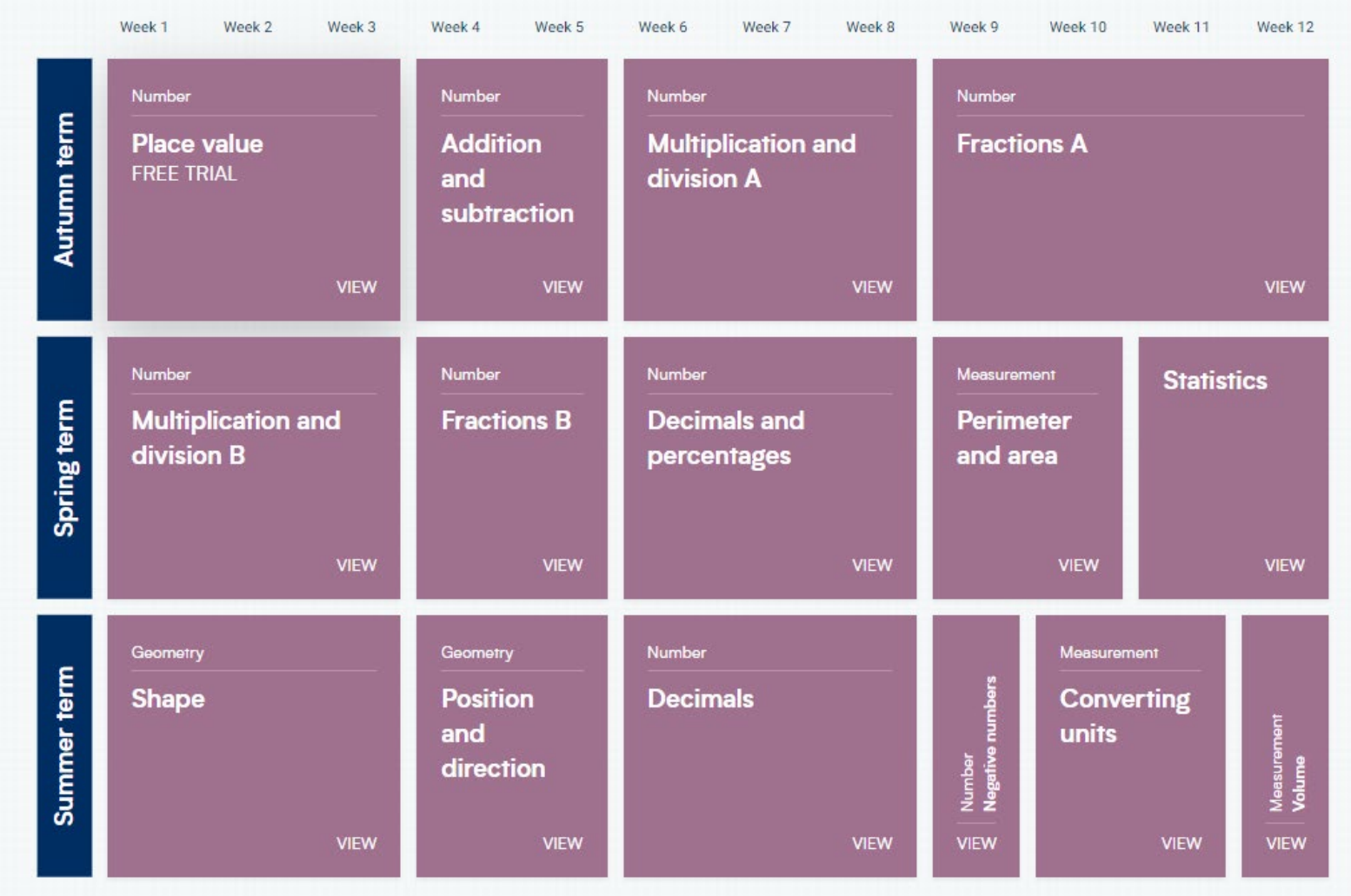
Year 5



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Year 6