|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Autumn | Early mathematical experiences |  |  | Pattern and early number |  | Numbers within 5 |  |  |  | Addition and subtraction with 5 |  |  |
| Spring | Numbers within 10 |  |  | Addition and subtraction within 10 |  |  | Shape, sorting and pattern |  | Numbers within 15 |  | Addition and subtraction within 15 |  |
| Summer | Grouping and sharing |  | Numbers within 20 |  | Addition and subtraction within 20 |  | Doubling and halving |  | Measure |  | Money | Numbers beyond 20 |

## Priorities:

- Counting; comparing and composition
- Concrete resources first and foremost
- Commutative law ( $4+2$ or $2+4$ ) and associative law $(4+5=7+2)$
- 5 counting principles
- Subitising
- Cardinality and ordinality
- Begin introducing notation at a time appropriate (shouldn't form as a barrier to mathematical understanding), using numerals to represent the abstract of the concrete
- Opportunities for games outside the lesson and classroom
- Discrete bar model to display relationships with number
- Introduce pictorial once learning is secure with concrete

|  | 1 2 | 3 | 4 | 5 [\|l| | 7 | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Autumn | - Classifying objects based on one attribute (shape, colour, size, position) <br> - Matching equal and unequal sets <br> - Comparing objects and sets <br> - Ordering objects and sets <br> - Stable-order principle verbally |  | - Recognise, describe, copy and extend colour and size patterns <br> - Count and represent the numbers 1 to 3 (one-to-one principle \& abstraction principle) <br> - Estimate and check by counting |  | - Count up to 5 objects, starting from different numbers, forwards and backwards (one-to-one principle \& abstraction principle) <br> - One more \& one fewer <br> - Explore zero <br> - Order numbers <br> - Compare quantities to 5 <br> - Cardinality <br> - Order-irrelevance principle <br> - Subitise to 5 |  |  | - Explore adding and subtracting within 5 (each number) <br> - Aggregation (2 and 3, together make 5) <br> - Augmentation (2 and I give 3 more) <br> - Commutativity <br> - Patterns within number (e.g. doubling and halving 1 and 2) |  |  |
| Spring | - Count up to 10 objects starting from different numbers, forwards and backwards (one-to-one principle \& abstraction principle) <br> - One more \& one fewer, one greater \& one less <br> - Order numbers <br> - Compare quantities to 10 <br> - Cardinality <br> - Quantity set <br> - Order-irrelevance principle <br> - Subitise to 5 , then add on |  | - Recap zero <br> - Explore adding and subtracting within 10 (each number) <br> - Commutativity <br> - Aggregation (2 and 3, together make 5) <br> - Augmentation (2 and I give 3 more) <br> - Patterns within number (e.g. doubling and halving ( 3,4 \& 5) <br> - Discrete bar model |  |  |  |  |  | - Explore adding and subtracting within 15 (each number) <br> - Commutativity <br> - Aggregation (2 and 3, together make 5) <br> - Augmentation (2 and I give 3 more) <br> - Patterns within number (e.g. doubling and halving (6 \& 7) <br> - Discrete bar model |  |
| Summ er | - Counting and sharing in equal groups <br> - Odd and even counting in jumps of 2s <br> - Grouping into fives and tens <br> - Relationship between grouping (partitioning a number) and sharing (division) <br> - Discrete bar model | - Count up to 20 objects starting from different numbers, forwards and backwards (one-to-one principle \& abstraction principle) <br> - One/two more \& one/two fewer, one greater \& one less <br> - Order numbers <br> - Compare quantities to 20 <br> - Cardinality <br> - Quantity set <br> - Order-irrelevance principle |  | - Explore adding and subtracting within 20 (each number) <br> - Commutativity <br> - Aggregation (2 and 3, together make 5) <br> - Augmentation (2 and I give 3 more) <br> - Patterns within number (e.g. doubling and | - Doubling and halving ( 1,2 , $3,4,5,6,7,8$, 9, 10) <br> - Relationship between them | - Describe capacities <br> - Compare volumes <br> - Compare weights <br> - Estimate, compare and order lengths |  | - Coin recognition and values <br> - Combinations to total 20p <br> - Change form 10p | - Numbers beyond 20 <br> - Count up to 20 objects starting from different numbers, forwards and backwards (one-to-one principle \& abstraction principle) <br> - one/two more \& one/two fewer, one/two greater \& one/two less <br> - Cardinality <br> - Quantity set <br> - Order-irrelevance principle |  |


|  |  | $\bullet$ Subitise to 5, then add on | halving $8,9 \& 10)$ |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |


| Autumn 1 - Overview |  |  | Reception |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weeks | Monday | Tuesday | Wednesday | Thursday | Friday |
| 1 | - Classifying objects based on one attribute (size) | - Classifying objects based on one attribute (colour) | - Classifying objects based on one attribute (shape) | - Classifying objects based on one attribute (position) | - Matching equal and unequal sets |
| 2 | - Matching equal and unequal sets | - Comparing objects and sets | - Comparing objects and sets | - Comparing objects and sets | Gap fill |
| 3 | - Ordering objects and sets (forwards) | - Ordering objects and sets (forwards, from another direction: vertical, horizontal and circular) | - Ordering objects and sets (backwards) | - Ordering objects and sets (backwards from another direction: vertical, horizontal and circular) | Mini quiz - gap fill |
| 4 | - Recognise colour and size patterns | - Recognise and describe colour and size patterns | -Recognise, describe, copy colour and size patterns | - Recognise, describe, copy and extend colour and size patterns | Gap fill |
| 5 | - Count and represent the numbers 1 to 3 (one-to-one principle and stable-order "string") | - Count and represent the numbers 1 to 3 (one-to-one principle and stable-order "chain") | - Count and represent the numbers 1 to 3 (one-to-one principle, stable-order "chain", abstract principle) | - Count and represent the numbers 1 to 3 (one-to-one principle, stable-order "breakable chain", abstract principle) | Gap fill |
| 6 | - Count and represent the numbers 1 to 3 (objects) (one-to-one principle, stable-order "numerable chain", abstract principle) | - Count and represent the numbers 1 to 3 (objects) (one-to-one principle, stable-order "numerable chain", abstract principle) | - Count and represent the numbers 1 to 3 (objects) (one-to-one principle, stable-order "bi-directional chain", abstract principle) | - Count and represent the numbers 1 to 3 (objects) (one-to-one principle, stable-order "bi-directional chain", abstract principle) | Mini quiz - gap fill |


| Autumn 2 - Overview |  |  | Reception |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weeks | Monday | Tuesday | Wednesday | Thursday | Friday |
| 1 | - Count up to 4 objects and counters (introduce 5 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle \& cardinal principle) | - Count up to 4 objects and counters (introduce 5 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle \& abstraction principle) | - Count up to 5 objects and counters (introduce 5 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle \& cardinal principle) | - Count up to 5 objects and counters (introduce 5 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle \& abstraction principle) | Gap fill - order irrelevance principle |
| 2 | - How many cardinal principle | - One more, one fewer than a given number 1-5 | - Explore zero | - One more, one fewer than a given number 0-5 | Gap fill |
| 3 | Compare quantities - snap with dots, dominoes (building perceptual subitise) | Compare quantities - which is greater than (building perceptual subitise) | Compare quantities - which is less than (building perceptual subitise) | Gap fill | Mini quiz - gap fill |
| 4 | - Explore adding within 3 (each number) aggregation | - Explore adding within 5 (each number) aggregation | - Explore subtracting within 3 (each number) | - Explore subtracting within 5 (each number) | Gap fill |
| 5 | - Explore adding within 3 (each number) augmentation | - Explore adding within 5 (each number) augmentation | - Explore subtracting within 3 (each number) augmentation | - Explore subtracting within 5 (each number) augmentation | Gap fill |
| 6 | -Commutativity - pattern | -Commutativity - pattern | - Commutativity - | - Commutativity - pattern | Mini quiz - gap fill |


|  | recognition( e.g. $2+3$ is the same as $3+2$ ) BONDS TO 3 | recognition( e.g. $2+3$ is the same as $3+2$ ) BONDS TO 4 | pattern recognition( e.g. $2+3$ is the same as $3+2$ ) <br> BONDS TO 5 | recognition( e.g. $2+3$ is the same as $3+2$ ) BONDS TO 5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | - Patterns within number doubling and halving 1 and 2) | - Patterns within number (e.g. doubling and halving 1 and 2) | Gap Fill | Gap Fill | Gap Fill |


| Spring 1 - Overview |  |  | Reception |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weeks | Monday | Tuesday | Wednesday | Thursday | Friday |
| 1 | - Introduce and represent number 6 | - Count up to 6 objects and counters (introduce 10 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Make and break 6 Number bonds to 6 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Make and break 6 Number bonds to 6 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Gap fill |
| 2 | - Introduce and represent number 7 | - Count up to 7 objects and counters (introduce 10 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Make and break 7 Number bonds to 7 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Make and break 7 Number bonds to 7 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Gap fill |
| 3 | - Introduce and represent number 8 | - Count up to 8 objects and counters (introduce 10 frames), starting from different numbers, | - Make and break 8 Number bonds to 8 <br> Commutativity - pattern | Make and break 8 - <br> Number bonds to 8 <br> Commutativity - pattern | Gap fill |


|  |  | forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | recognition(e.g. $5+2$ is the same as $3+4$ ) | recognition( e.g. $5+2$ is the same as $3+4$ ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | - Introduce and represent number 9 | - Count up to 9 objects and counters (introduce 10 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Make and break 9 Number bonds to 9 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Make and break 9 Number bonds to 9 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Gap fill |
| 5 | - Introduce and represent number 10 | - Count up to 10 objects and counters (introduce 10 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Make and break 10 - Number bonds to 10 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Make and break 10 <br> - Number bonds to 10 <br> Commutativity - pattern recognition( e.g. $5+2$ is the same as $3+4$ ) | Gap fill |
| 6 | - One more/ one greater, one less/ fewer than a given number 0-10 | - One more/ one greater, one less/ fewer than a given number 0-10 | Compare quantities - snap with dots, dominoes (building perceptual subitise) | Compare quantities - which is greater and less than (building conceptual subitise, with 5 , count on to another number) | Quantity sets - an object represents 5 (link to prior use of ten frame), count on to another number) |


| Spring 2 - Overview |  |  | Reception |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weeks | Monday | Tuesday | Wednesday | Thursday |  |
| $\mathbf{1}$ | $\bullet$ Explore adding within 10 <br> $(5-9)-($ knowledge of | $\bullet$ Explore adding within 10 <br> $(0-10)$ <br> (each number) - | $\bullet$ Explore subtracting within <br> 10 (subtracting 5 (link to | $\bullet$ Explore subtracting within <br> 10 (each number) | Gap fill |


|  | subitise 5 , then add on) aggregation <br> - Add 0 as well <br> - Discrete bar model | aggregation <br> - Add 0 as well <br> - Discrete bar model | subitise) from a given number between 5-9) (each number) <br> - Subtract 0 as well <br> - Discrete bar model | - Subtract 0 as well <br> - Discrete bar model |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | - Explore adding within 10 (5-9) augmentation (knowledge of subitise 5 , then add on) <br> - Discrete bar model | - Explore adding within 10 (0-10) (each number) augmentation <br> - Discrete bar model | - Explore subtracting within 10 (subtracting 5 (link to subitise) from a given number between 5-9) (each number) <br> - Discrete bar model | - Explore subtracting within 10 (each number) <br> - Discrete bar model | Gap fill |
| 3 | - Patterns within number doubling (3, 4 and 5) | - Patterns within number doubling (3, 4 and 5) | - Sharing into equal groups (halving) | - Sharing into equal groups (halving) | Mini quiz - gap fill |
| 4 | Odd and Even numbers | Odd and even numbers | - Counting in equal groups - grouping in 2s (links to even) | - Counting in equal groups - grouping in 2s (links to even) | Gap FIII |
| 5 | - Recognise 3-D shapes | - Sort 3-D shapes | - Recognise 2-D shapes | - Sort 2-D shapes | Recognise and sort 2-D (separately from) and 3-D shapes |
| 6 | - Describe position accurately (right and up) | - Describe position accurately (left and down) | - Complete patterns (shapes e.g. square, square, triangles; square, square ...) | - Create patterns (shapes) | Mini quiz - gap fill |


| Summer 1 - Overview |  |  | Reception |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weeks | Monday | Tuesday | Wednesday | Thursday | Friday |
| 1 | - Count up to 11 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Count up to 11 objects and counters (introduce 10 frames, subitise from 5 ), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Count up to 12 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Count up to 12 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | Gap Fill |
| 2 | - Count up to 13 objects and counters (introduce etymology of 'teen' that this means " 10 more", therefore thirteen is " 10 more than 3) (introduce 10 frames, subitise from 5), starting from different | - Count up to 13 objects and counters (introduce etymology of 'teen' that this means " 10 more", therefore thirteen is " 10 more than 3) (introduce 10 frames, subitise from 5), starting from different | - Count up to14 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one | - Count up to14 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one | Gap fill |


|  | numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | principle, cardinal principle) | principle, cardinal principle) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | - Count up to 15 objects and counters (introduce 10 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Count up to 15 objects and counters (introduce 10 frames), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - One more/ one greater, one less/ fewer than a given number 6-15 <br> - two more/ two greater, two less/ fewer than a given number 6-15 | - One more/ one greater, one less/ fewer than a given number 6-15 <br> - two more/ two greater, two less/ fewer than a given number 6-15 | Gap fill - Odd and even |
| 4 | - Quantity set (introduce an object to represent 10 link to 5 p to represent 5, and 10p to represent 10 afterwards) | - Quantity set (introduce an object to represent 10 link to 5 p to represent 5, and 10p to represent 10 afterwards) | - Odd and Even to 15 | Mini quiz - gap fill | Gap fill |
| 5 | - Explore adding within 12 (5-12) across ten <br> - Add 0 <br> - Discrete bar model | - Explore subtracting within 12 (5-12) across ten <br> - Subtract 0 <br> - Discrete bar model | - Explore adding within 15 (each number between 10 -15) <br> - Add 0 <br> - Discrete bar model | - Explore subtracting within 15 (each number between 10-15) <br> - Subtract 0 <br> - Discrete bar model | Gap fill |
| 6 | - Explore adding within 15 (each | - Explore subtracting within 15 (each | - Explore adding within 15 (each | - Explore subtracting within 15 (each | Mini quiz - gap fill |


|  | number between 5 -15) <br> - Discrete bar model | number between 5-15) <br> - Discrete bar model | number between 0 15) <br> - Doubling 6 \& 7 <br> - Discrete bar model | number between 0-15) <br> - Halving 12 \& 14 <br> - Discrete bar model |  |
| :---: | :---: | :---: | :---: | :---: | :---: |


| Summer 2 - Overview |  |  | Reception |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weeks | Monday | Tuesday | Wednesday | Thursday | Friday |
| 1 | Use language of length to describe and compare objects (e.g. tall, short, long, wide, narrow, near, far and associated comparative and superlative adjectives) | Use manipulatives to make non-standard measurements (e.g. hands, cubes, blocks) <br> - Order lengths based on... | - Use language of mass to describe and compare objects (e.g. heavy, light and associated comparative and superlative adjectives) | Use manipulatives and balances to make non-standard measurements (e.g. cubes) <br> - Order weights based on... | Gap fill |
| 2 | - Use language of capacity to describe | Use manipulatives to make non-standard | - Estimating lengths which is longer? | - Time - Before, after - sequencing events | Mini quiz - gap fill |


|  | containers (e.g. full, nearly full, half full, nearly empty, empty, tall, thin, narrow, wide, shallow) and to compare which objects have greater or lesser capacity (e.g. holds more, holds less) | measurements (e.g. jugs of water, puddles, sink basins) <br> - Order capacities based on... | Which is shorter? <br> - Estimating weights which is heavier, which is lighter? | within a day. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | - Coin recognition and values ( 1 ps , $2 \mathrm{ps}, 5 \mathrm{ps}, 10 \mathrm{ps}$, 20 ps, 50 ps and $£ 1$ ) | - Recap quantity sets (5p, 10p and 20p) <br> - Create combinations to 20p | - Recap quantity sets (5p, 10p and 20p) <br> - Create combinations to 20p using $5 p+10 p$ plus 5 lots of 1 ps | - Change from 10p using 1 ps, 2 ps and 5 ps | Mini quiz - gap fill |
| 4 | - Count up to 16 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Count up to 17 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Count up to 18 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - Count up to 19 objects and counters (introduce 10 frames, subitise from 5), starting from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | Gap fill |
| 5 | - One more/ one greater, one less/ fewer than a given number 10-20 | - Count up to 20 objects and counters (introduce 10 frames), starting | - One more/ one greater, one less/ fewer than a given number 8-20 | - Quantity set (introduce an object to represent 10 link to 5 p to | Mini quiz - gap fill |


|  | from different numbers, forwards and backwards (stable-order principle, one-to-one principle, cardinal principle) | - two more/ two greater, two less/ fewer than a given number 8-15 | represent 5 , and <br> 10p to represent 10 <br> afterwards) Link to <br> 20 p , and subtracting <br> objects worth 5 p or <br> 10p, what object <br> would be left? |  |
| :---: | :---: | :---: | :---: | :---: |
| Doubling 1, 2, 3, 4, 5 | Doubling 6, 7, 8, 9, 10 | - Halving 2, 4, 6, 8 , 10 <br> - Relationships between this and doubling | - Halving 12, 14, 16, 18, 20 <br> - Relationships between this and doubling | Gap fill |

