| Representations | Key knowledge and vocabulary | Concrete & pictorial Conceptual modelling | Abstract Skills and knowledge | Application across the environment |
|-----------------|---|---|--|---|
| | Understanding that objects can be moved or hidden but they still exist. | Natural materials and physical objects in all environments. | Spoken number names. One, two, three. I have three. | Hiding objects and findin them again. Sorting into sets. |
| | Modelling with objects then hiding them. Modelling that objects can be placed together for a | Objects and resources to physically represent a set. Images and pictures to represent a set. | Mark making and graphics to represent a set of objects in the context of play. | Matching one item to another then to one ima They are the same! Snack time: Who is eatin |
| | reason. Modelling the cardinal and ordinal numbers when | Provide matching items to encourage adult and child to mimic each other in a cooperative game. | Memory games, peek – a - boo, hide and seek. | the same fruit? Who has something different? Problem solving: "We ne |
| | playing. | 'What is the same and what is different?' | | to find the bear in the basket. Here he is! |

| Nursery: 22-36 months (Birth to 3) | | | | | | |
|---|-----------------------------------|-------------------------------|-----------------------------|--------------------------------|--|--|
| Selects a small number of objects from a group when asked, for example, 'please give me one', 'please give me two'. | | | | | | |
| Creates and experiments with symbols and marks representing ideas of number | | | | | | |
| Begins to make comparisons between quantities. | | | | | | |
| Uses some language of quant | ities, such as 'more' and 'a lot' | | | | | |
| Knows that a group of things of | hanges in quantity when somet | hing is added or taken away. | I | 1 | | |
| | Key knowledge and | Concrete & pictorial | Abstract | Application across the | | |
| Representations | vocabulary | Conceptual modelling | Skills and knowledge | environment | | |
| | | | | | | |
| | Concepts of quantity, | Natural materials and | Spoken number names. | Wonderful one and terrific | | |
| | equality and inequality. | physical objects in all | One, once, alone, first. | two displays. | | |
| | | environments. | | | | |
| | Modelling combining sets of | Pictures to show one or two | | Hiding objects find one of, | | |
| | small quantities. | items. | | or lots of in the sand, across | | |
| | | | | the setting. | | |
| | Modelling adding to a | Objects and resources to | Mark making and graphics | _ | | |
| | quantity to make it bigger. | physically represent a | to represent a small number | Matching one item to | | |
| | | quantity. Images and | in the context of play. | another then to one image. | | |
| 10 | Removing objects from a set | pictures to represent a small | | Repeat with two. | | |
| | to show the amount is now | guantity. | | | | |
| | smaller. | . , | | Snack time: one piece of | | |
| One is smaller than | | Using dishes/hoops to make | | fruit to one person, two | | |
| two. | | quantities of different | Mark making and graphics | nieces each | | |
| | | values that visually show | to represent a small | | | |
| a < | | one set has more than the | quantity to compare in the | Problem solving: "We need | | |
| | | other | context of play | one/two each how can we | | |
| | | Images of quantities to | context of play. | sort the boars?" | | |
| | | approx Which has more? | | solt the bears! | | |
| | | compare. which has more? | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

EYFS Policy for Number & Calculation

| Nursery/Reception: 30 - 50 months (3 and 4 Knows that numbers identify how many obje Beginning to represent numbers using finger Sometimes matches numeral and quantity of Compares two groups of objects, saying whe Separates a group of three or four objects in Shows an interest in representing numbers. | 4 year olds) cts are in a set. rs, marks on paper or pictures prrectly. en they have the same numbe different ways, beginning to | s. er. recognise that the total is st | ill the same. | |
|--|---|--|--|---|
| Representations | Key knowledge and vocabulary | Concrete & pictorial Conceptual modelling | Abstract Skills and knowledge | Application across the environment |
| | Concepts of cardinality, equality, inequality and rearranging the same quantity. | Natural materials and physical objects in all environments to count. (cardinality) | Represent a quantity by drawing. | Construction. What can you make with 3 / 4 bricks? |
| Inequality: bigger, smaller, more Une is smaller than two. Two is smaller than three. Two is more than one. Three is more than two. Three is more | Counting to 3. One to one correspondence. Knowing how many are in the set. Comparing numbers 1,2 and 3 – 'bigger' and 'smaller' Stable ordering numbers 1 to 3. 3 is made up of 2 and 1. | quantity that can be counted. Use fingers to show small amounts. Images and pictures to represent a small quantity. Resources that match a numeral to a quantity. E.g a number track, | graphics to represent a small quantity and attempts at numerals. Mark making and drawings to replicate the concrete and pictorial model. | Put three carriages on the train. How many cars are in the car park? How many skittles have you knocked over? Mark making and graphics to represent a small number in the context of play. |
| "I have three sweets. I eat them, I now have zero." | Using counting strategies and subitising to identify the number of concrete objects in the set. Concept of zero. | digits cards with numerals and quantities represented. | With models, attempts to write numerals and continue to mark make. | |

| Reception: 40 - 60 months Counts up to three or four objects by s Counts objects to 10 and beginning to Selects the correct numeral to represe Uses the language of 'more' and 'fewe Finds the total number of items in two Says the number that is one more tha In practical activities and discussion, b | saying one number name for eacount beyond 10. ant 1 to 5, then 1 to 10 objects. ar' to compare two sets of obje groups by counting all of them n a given number. beginning to use the vocabular | ach item. cts. ì. y involved in adding and subtr | racting. | |
|--|--|---|--|---|
| Representations | Key knowledge and vocabulary | Concrete & pictorial Conceptual modelling | Abstract Skills and knowledge | Application across the environment |
| | Number structure. Equality, inequality. Partitioning and recombing. Subitising to 5. 5 as an anchor. Modelling the combining of sets, recognising that the quantity has increased. Using counting strategies and subitising to identify the number of concrete/nictorial objects | Natural materials, physical objects and mathematical resources e.g. counters in all environments to count accurately. (cardinality). To 10 and beyond. Pictures to show a quantity that can be counted then to 10 and beyond. Resources that match a numeral to a quantity Models of mathematical | Represent a quantity by drawing or by using graphics. (using drawings to show a resource) Mark making and graphics to represent numbers to 10 and beyond in their play. Graphics and attempts at numerals in the correct orientation. Mark making and | Malleable play: problem solving 'Let's put 5 cherries on the cakes.' 'How will you put your 5 candles on the two cakes?' Role play: problem solving Each shelf in the shop must have 5 or more items to sell. How shall we arrange the items? |
| | in the set | counting resources to show the more or fewer. Using a number track or line to show one more than a given number | numerals to replicate the concrete and pictorial model. Graphics and numerals to show the addition | Find items in the sand. 3 shells and 2 fish. How many items altogether? |

Reception: ELG Number 2020

- Have an understanding of number to 10, linking names of numbers, numerals, their value, and their position in the counting order.
- Subitise (recognise quantities without counting) up to 5.
- Automatically recall number bonds for numbers 0-5 and *for 10*, including corresponding partitioning facts.

| | Key knowledge and | Concrete & pictorial | Abstract | Application across the |
|-----------------|-------------------------------|------------------------------|------------------------------|----------------------------------|
| Representations | vocabulary | Conceptual modelling | Skills and knowledge | environment |
| | | | | |
| | Number structure. | Natural materials, physical | Represent a quantity by | Mud kitchen play: problem |
| | Equality, inequality. | objects and mathematical | drawing or by using | solving |
| | Partitioning and | resources to subitise to 6. | graphics. (using drawings to | 'Let's put 6 cups of mud in |
| | recombining. | Then group to 10. | show a resource) | the pan.' |
| | | | | 'Now put 4 cups more in the |
| | Subitising to 5. 5 as an | Resources that match a | Mark making and graphics | pan.' How many cups of |
| | anchor. Knowing | numeral to a quantity within | to represent numbers to 10 | mud are in the pan?' |
| | representations for 10. | a mathematical model. | and beyond in their play. | |
| | 5 + 5 = 10. | | | Construction play: problem |
| | | Whole part-part diagrams to | | solving Make houses with 10 |
| | Wodelling the combining of | represent values with | Graphics and attempts at | bricks in different ways. |
| | values to make 5 and 10. | images then numerals. | numerals in the correct | e.g. 7 bricks tall then 3 bricks |
| | Using recall strategies and | | orientation. | for the roof. |
| | cubiticing to identify the | | | |
| | subitising to identify the | | Mark making and numerals | |
| | concrete/nictorial objects in | | to replicate the concrete | |
| | the set | | and pictorial model. | |
| | the set. | | Graphics and numerals to | |
| | Recall number facts and | | show the addition facts. | |
| | relationships | | | |
| | 10 = 8 + 2 | | | |
| | 10 = 2 + 8 | | | |
| | | | | |

| Reception: ELG Numerical Patterns 2020 | | | | | | |
|---|-------------------------------|------------------------------|------------------------------|------------------------------|--|--|
| Automatically recall double facts up 5+5 | | | | | | |
| Compare sets of objects up to 10 in different contexts, considering size and difference | | | | | | |
| Explore patterns of num | mbers within numbers up to 10 | 0, including evens and odds. | | | | |
| | Key knowledge and | Concrete & pictorial | Abstract | Application across the | | |
| Representations | vocabulary | Conceptual modelling | Skills and knowledge | environment | | |
| | Number structure. | Natural materials, physical | Represent a quantity by | Exploring in play: problem | | |
| | Doubles to 5 + 5 | objects and mathematical | drawing or by using | solving | | |
| | Recognising doubles with a | resources in different sizes | graphics. (using drawings to | 'Let's use the odd and even | | |
| | variety of models. | e.g. counters in all | show a resource) | number lines to explore' | | |
| | Modelling the combining of | environments to count | | Farm set | | |
| | | accurately. (cardinality). | Mark making and graphics | Dolls House | | |
| | doubles up to 10. | To show doubles in nature. | to represent doubles/odds | Car mat | | |
| | Using recall strategies and | Resources that match a | in their play | | | |
| | subitising to identify the | numeral to a double | | Role play: problem solving | | |
| | number of | quantity. To show odd and | Graphics and attempts at | Dotty Double's Shop, Buy 3 | | |
| 1 | concrete/pictorial objects in | even numbers | numerals in the correct | you will get 6 | | |
| | the set. | | orientation. | you min get o | | |
| | | Models of mathematical | | Odd and even hunt: Find | | |
| | Recall doubles facts | counting resources to show | Mark making and numerals | items in the environment | | |
| | 1 + 1 =2 | equal and unequal | to replicate the concrete | 3 shells are odd, and 2 fish | | |
| | 2 + 2 = 4 | guantities. | and pictorial model. | are even. | | |
| | Recognise odd and even | Using a number track or line | Graphics and numerals to | | | |
| | numbers using sharing to | to show odd and even | show the number facts and | | | |
| | find the 'left over' when the | numbers. | patterns. | | | |
| | number is odd, no 'left over; | | | | | |
| | when the number is even. | | | | | |